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ABSTRACT

This document describes a project that developed a resource guide for information on business-education partnerships in California, using a literature search and telephone interviews, and produced a guide to these partnerships. The project also explored the role of business in educational improvement and reform. Information is presented on the California character in the areas of economics, technology, and demographics, and the impact of those areas on education in the state. The guide, in addition, describes the overall partnership scenario in California. As part of the description, five case studies of model partnership programs in the state are presented to represent the types of involvement business can have in education and their effects on educational reform. The guide concludes that industry, in the form of business-education partnerships, represents a viable force in the education reform process, as it is one of the few sectors in society equipped with the resources necessary to perform the immense task. Business and industry can provide the necessary information, cutting-edge technology, and economic resources to effect significant educational changes. Appendixes include a list of implications for education, two perspectives on the role of business in education reform, and a list of the major agencies and organizations involved. There are 48 references. (Author/KC)

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BUSINESS-EDUCATION PARTNERSHIPS IN CALIFORNIA: AN OVERVIEW AND GUIDE WITH SELECTED CASE STUDIES

A Thesis

Presented to

the Faculty of the School of Education

California State University, Los Angeles

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Michele Bina

Fall, 1990

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ABSTRACT

Business-Education Partnership Programs in California: An Overview and Resource Guide with Selected Case Studies

The goal of the project is to produce a resource guide that provides information on business-education partnerships in California and to describe the role of business in educational improvement and reform. It presents information on the California character in the areas of economics, technology, demographics and the impact of those areas on education in the state. The guide , in addition, describes the overall partnership scenario in California as it exists within that context. As part of the description of the partnership scenario, five case studies of model partnership programs in the state are presented to represent the types of involvement business can have in education and their effects on educational reform.

This project reviews various aspects of collaborative efforts between business and education, partnerships which are dedicated to education improvement and reform. It is the author's belief that industry, in the form of business-education partnerships, represents a viable force in the education reform scenario, as it is one of the few sectors in society equipped with the resources necessary to perform the immense task. Business and industry can provide the necessary information, cutting-edge technology, economic resources to affect significant educational changes.

Overall, the project's practical significance is to provide an information guide on partnerships in California which can be used by business people and educators to improve their practical knowledge of business-education collaborative efforts as they exist in California today.

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Lastly, but certainly not least in my gratitude, I thank my family for their patience and encouragement.

CHAPTER 1

Introduction

Project Goal

> As we approach and enter the 21st Century, California will be swept in a typhoon of intensifying economic and social change. Existing challenges will be compounded by departures and reversals of conditions that have long been taken for granted. These multiple waves of change will require new and intensified responses from individuals and the institutions that serve them (Pacific Management and Research Associates, 1988, p. 1).

Physicists contend that the one phenomenon in the universe that is constant is the phenomenon of change. As a result of global communication and technological advances, our world is changing exponentially and multi-dimensionally. As adults we respond to these complex changes by applying the knowledge and skill sets we have acquired through our academic endeavors and life experiences. And if we assume that life in today's society is less complex than tomorrow's society will be, it becomes imperative that our children are given the education necessary to create an evolving society or at

very least, to sustain today's complexity.

However, as it is well known, education in the United States is in a troubled state with national student dropout rates at 30% to 50%, dropping student achievement scores and illiteracy affecting approximately 30 million Americans. The current literature and advocates on the subject point to education reform and educational systemic restructuring to solve the immense problems encountered on the school front. It is the intention of this writer to describe the role of business, as presented through business-education partnerships, in education reform. Partnerships, also known as collaborative efforts, are on-going relationships that bring together schools, businesses and other community organization to address their mutual needs and mutual interest in the educational process.

The project is a resource guide on business-education partnerships for business and educators and others. It presents information on the California character in the areas of economics, technology, demographics and the impact of those areas on education in the state. The guide , in addition, describes the overall partnership scenario in California as it exists within that context. As part of the description of the partnership scenario, five case studies of model partnership programs in the state are presented to represent the types of involvement business can have in education and their effects on educational reform.

This project reviews various aspects of collaborative efforts between business and education, partnerships which are dedicated to education improvement and reform. It is my belief that industry, in the form of business-education partnerships, represents a viable force in the education reform scenario, as it is one of the few sectors in society equipped with the resources necessary to perform the immense task. Business and industry can provide the necessary information, cutting-edge technology, economic resources to affect significant educational changes.

Project Purpose And Accompanying Significance

The purpose of this guide is to:

1. Describe the role of business in education reform and the levels of involvement business can have in education.
2. Present a structured and organizational (network) overview of the partnership entities as they exist in California today.
3. Present case studies of five selected model partnership sponsored by some the major partnership entities in California.

The case studies will be presented as follows:

1. Background
2. Focus of the Partnership
   a. Mission
   b. Goals/Objectives

3. Program Description/Components
    a. Assessments used
    b. Methods adopted
4. Instructional/Curriculum Components
5. Program Outcomes
    a. Evaluation methods
6. Program Future Directions

The significance of this project reflects the significance of the problem. If, as an economy we are to survive and thrive, we must address the changing educational and training needs of our adult and youth. Additional educational resources and fundamental solutions to the human resource crises experienced in business today. I believe that business-education partnerships is an important option. Thus, the project has practical significance and the information presented in the guide on the partnership programs will clarify the fragmentation that exists in business-education partnerships. In addition, the guide will profile five selected model programs which are presented as case studies in order to give readers general information on the mechanics and properties of the various programs.

Project's Objectives

This project, which includes selected case studies, addresses the following questions:

1. What are the social, political, economical and technological forces in California that affect the educational partnership scenario and implications thereof?
2. What does the partnership scenario look like in California?
   a. Description of agencies
   b. State profile
3. What is the role of business in education reform?
4. How is the relationship between business and the educational agency, as a partnership, defined?
   a. History
   b. Resources allocated
5. What were the needs in the community or business environment that gave impetus to the partnership?
   a. Method of assessment
6. What are the programs' goals/objectives as they relate to the needs perceived?
7. What are the programs' instructional design?
   a. strategies
   b. methods
8. What are the programs' method of evaluation?
9. What are the programs' measure of success?

10. What are the programs' future?

Criteria For Selection Of Model Programs

In order to be selected as case studies, the following program criteria were set:

1. The program represents a collaborative effort between a business and an educational agency with mutually agreed upon mission, goals and objectives.
2. The program is a viable part of the educational agency and is not a pilot project of short term nature.
3. The program demonstrates an effectively designed curriculum beginning with assessments of the addressed population as appropriate.
4. The program has designed, or is in the process of designing, an effective evaluation method to measure private sector commitments, school system commitments/achievements, and student commitments/achievements.
5. The program has, in place, measurements of success:
   a. Number of graduates referred or placed in employment
   b. Improved attendance and achievement
   c. Increased graduation rates
   d. Number of graduates retrained successfully into new jobs.

In addition, the case studies presented are model partnership programs

that have been selected with the following considerations:

1. The programs selected represent a wide variety of industries and/or student/learner populations.
2. The programs selected represent activities of a variety of "sponsoring" or intermediary partnership entities in the state; from state education to private, non-profit brokering agencies to a combination of partnerships entities (such as in the California Compact model).
3. The programs selected represent varying levels of business involvement as described by the National Alliance of Business literature (see Appendix B).

Definition Of Terms

1. Partnership Entities: Either an intermediary agency sponsoring a program or program representing a collaborative effort/activity between business and an educational agency.
2. Partnership Programs: On-going relationships, collaborative efforts that bring together schools, businesses and other community organizations to address their mutual needs and mutual interest in the educational process. They can range from simple one school/one business connections to larger endeavors with multiple connections.
3. Model Program: An exemplary program presented for analysis and guidance and/or emulation. A collaborative effort that has met the

aforementioned criteria.

4. Business/Industry: An inclusive term signifying an organization engaged in purchase, sale, producing of commodities or services or in a related financial transaction.

5. Educational Agency: An entity that provides schooling and/or training by formal instruction and/or supervised practice.

6. Addressed Population: The students and learners involved in the partnership programs, selected on the basis of the mission and objectives of the program.

Assumptions

In the process of developing this guide, the following assumptions were made:

1. The central purpose of education is to enculturate and prepare the young to lead productive and fulfilling lives in society which includes preparing them in the values of work and teaching them the knowledge and the skill sets necessary for employment.

2. Educational partnerships have the potential to provide and affect long-term education renewal.

3. Partnership programs, while they may vary in mission and objectives and approach, do affect a positive and productive change in the educational climate and environment.

4. Industry is a driving force in the development of educational partnership programs, as education continues to adopt a reactive-to-needs posture.

Scope and Delimitation of Project

As the one of the purposes of this guide is to describe business-education partnerships in California, the selected model programs cover a broad range of learner populations throughout the state. However, for the sake of practicality, this study is duly limited to five model programs and I wish to recognize on the onset that, there are many model programs, though not mentioned here, which deserve due consideration and study.

CHAPTER 2

Review of the Literature

In considering the issue of education reform and the role business can have in education reform, I will first review the four major environmental factors impacting education: social, economic, technological and political. Next I will review the implication of these factors on the workplace and education, both k-12 and adult. Finally, there will be a review of three diverse perspectives or solution sets proposed for education reform which include a thorough study of the major aspects of the third solution set, business-education partnerships, including national and state perspectives and planning and development issues. In conclusion, there will be a brief review of recommendations aimed at improving business-education partnerships.

Environmental Influences: Social Factors

Demographics or social factors present a major influence on education, as well as the workplace. The five following demographic factors are considered: population growth, the aging population, women, minorities, and immigrants in the workplace.

Population Growth

In California, as in the rest of the nation, the population growth will

decline considerably from 1.9 % to .9% for the decades of 2000-2010. The population growth rates will be mostly impacted by immigration from other countries, 190,000 annually, and immigration from other states, one million for the West (Pacific Management and Research Associates (PMRA) 1988, p.10).

The Aging Population

The proportion of the population over age 65 is expected to grow from 8.1% to 14.4% in 2020. Furthermore, the average age of the worker will rise from a current 31 to 44 years (Pacific Management and Research Associates, 1988, p. 14).

Women in the Workforce

By the year 2000, women will represent 61% of the workforce and will comprise three fifths of the new entrants in the labor force (Johnston & Packer, 1988 p. 85).

Minorities in the Workplace

Another chisel mark on the face of the workforce is the increase of ethnic representation. Hispanics (27%) and Asians (12%) will represent 39% of the workforce by the year 2000. The majority of working age adults will be Hispanics, Asians or blacks, while the majority of those over the age of 65 will non-Hispanic whites (Assembly Office of Research, 1986, p. 3).

The Immigrant Worker

The impacts of immigration on the labor force will be the most significant. The greatest influx of immigrants will be in Southern California. The typical immigrant profile covers a broad base of educational levels and experience. Twenty-five percent of immigrants in 1970 had less than five years of schooling, compared to 3% of native born Americans. However, 22% were college graduates, compared to 16% of the natives (Johnston & Packer, 1988).

Environmental Influence: Economic Factors and The Occupational Outlook

In the service sector, employment will rise from 14.5% in 1960 to 27.4% in 1995. A negative growth rate is projected for mining (-16%), agriculture (-12%) and manual labor (-7.5%) (Johnston & Packer, 1988).

Environmental Influence: Technological Factors

The Department of Labor projects that much of the new capital spending will be for high-technology innovations. The highly computer controlled production systems will further automate processes such as welding, fastening, materials handling,painting, assembly and inspection. And the computer is assumed to take on a greater role in offices as well as in factories (Department of Labor, 1988).

Technology plays a critical role in workplace education. Yet educational training institutions lag from 6-10 years behind companies in reflecting new

technological developments (Herschbach, 1988).

Environmental Influence: Political Factors

Nationwide, the constituency for public education is decreasing. Only 23% of the households in the United States now have children in schools (Doyle, 1989).

In California, the Gann Initiative of 1979 prevents the state from further assisting local governments in funding services and limits the expenditures of both state and local governments. In addition, the Initiative inhibits the state's capacity to provide private sector with a solid foundation for growth. "No economy can flourish without a healthy environment, a good system of transportation, and an educated and trained workforce" (The Assembly Office of Research, 1986, p. 3).

Implications

The implications of industrial transitions and transformations and demographic shifts are felt in two major areas:

1. the workplace with increased skill requirements and various workforce needs and,
2. education with greater resource needs in K-12 and adult education.

Workplace Needs: Skill Requirements

> Finding, let alone keeping a job in the 1990s and 21st century will be like aiming at a moving target. Workers and institutions that provide them with training must maintain high standards and be up-to-date (Pacific Management and Research Associates, 1988, p. 26).

Future jobs will require a more complex skill set as the lower skilled jobs become fewer. By the year 2000, nationally, the service sector (cooks, nursing aides, waiters, janitors, administrative support, and marketing and sales) will represent one half of the next new jobs to be created. The skill levels required to perform these jobs currently will be higher and more complex as automation, technology, market competition and continual company streamlining occur (Johnston & Packer, 1988, pp. 96-100). In California, 41% of the jobs in the year 2000 will be in higher skilled occupations, compared to 24% in 1984. There will be a 13% drop in lower skilled occupations by the year 2000.

As a result of the faster labor force growth for blacks and Hispanics, there will be a disparity between their current occupations and the projected occupational employment (U.S. Department of Labor, 1988 p. 5). In addition, the supply of entry-level workers is dwindling from the 1975 figure of 32% to the 1990 figure of 23% as youth population ages 14-24 shrink (Bernick, Best, & Weisberg, 1985,p.9).

Education Needs: Limited Resources

While the educational achievement and skill of California people meets national average, 11.9% of the adults over age 25 have completed only up to the 8th grade. However, 23.5% of the same age group have completed four or more years of college. (Bernick, et al, 1985,p.10)

The disparity is even more apparent as there are significant differences among ethnic and racial groups. 51% of Hispanics over the age of 25 have completed less than high school. Asians and blacks are comparable in scholastic achievement with 12-13 years of schooling. National data reveals, however, that 40% of non-whites fail to earn high-school diplomas (1984) as compared to 25% of white students (Bernick, et al, 1985).

To prepare the worker of the future for the workplace of the future, we need to prepare and educate the student of today, to provide the tools and knowledge necessary to become a productive adult. However, as it is well known, we have a crisis in our schools. The problem takes on several principal perspectives. As an example, in the United States, students at age ten and in the area of scientific knowledge rank seventh in a field of 15 countries. By the age of 15, the students rank 15th of 16 nations (Doyle, 1989, p. E 13).

In California, the quality in our schools has been declining as California ranks 40th in the country in retaining young people to high school graduation. In addition, there is an increase of 500,000 students annually in the state which

are majority non-English speaking and many from families in poverty (Hodgkinson, 1986, p.5).

In adult education, the implication of the state's environmental factors are equally profound. With 25% of the population functionally illiterate, the educational problems take on a new perspective. Pacific Management and Research Associates (PMRA, 1988) cite two major causes of the adult basic education deficiency. First, youths who drop out of school and/or fail to learn while in school, also known as drop-out or at-risk students, become "adults at-risk," lacking the basic skills of reading, writing and math , the basic skills required for employment. The drop-out student becomes the dropout adult and the student at-risk becomes tomorrow's worker at-risk. The state has a need to combat illiteracy. Secondly, the state needs to provide basic education for adults who dropped out, as well as upgrade the skills of the adult worker (PMRA, 1988, p. 470). The National Career Development Association (1988) supports PMRA's conclusions and reports that by the year 2000, as the U.S. economy switches over to a post-industrial economy, 25 million workers will need to be retrained and educated to upgrade their job skills.

Solutions To Workplace And Education Needs

Those concerned about the problem of education cover a broad spectrum: from private to public sector, commercial to non-profit, individual to large conglomerate, and, as such, represent a broad range of proposed solutions.

And, to the degree the problems are complex, so the proposed solutions must be multi-dimensional and multi-levelled. In an attempt to represent a complete landscape of proposed solutions aimed at education reform nationally, as well as in California, I have presented three diverse perspectives or solution sets:

1. K-12 initiatives as proposed by the California Assembly Office of Research,
2. adult education proposals as presented by the Pacific Management and Research Associates, and
3. business-education partnerships as proposed by several sources and advocates.

Solution Set I: K-12

In 1986, the State Assembly Office of Research, while mentioning the limitation of funding to schools in spite of the Hart-Hughes Education Reform Act (SB813) of 1983, also discussed some policy options and opportunities to improve the state of education in California. Among those were:

1. Implement Year-Round Schools. In 1986, 271 schools served 230,000 students year-round.
2. Upgrade the Teaching Profession. Teachers will need to be well trained to meet the needs of a culturally diverse student population.
3. Provide An International Initiative. This recommendation suggest that all

children in California should receive instruction in a second language and culture beginning in kindergarten.

4. Improve Technology in Education. Computers can provide for instruction in the absence of a qualified teacher.

5. Establish Public/Private Partnerships. "Good Education is Good Business." There is a reciprocal relationship at work between business and education. Education provides tomorrow's worker while business in turn, contributes through a healthier economy, higher earned income, tax dollars, donations and improved relationships with schools (Assembly Office of Research, 1986).

Solution Set 2: Adult Education

The 1988 report published by the Pacific Management and Research Associates discusses the challenges facing Adult Education in California and their solutions in three broad categories:

1. Meeting Economic Needs
2. Adjusting to Population Growth and Change
3. Improving Institutional Response

Meeting Economic Needs. The educational challenges cited by PMRA involved improving international competitiveness, increasing productivity, and adjusting to technological innovation and encompassing local economic development. PMRA proposes the following solutions: increased accessibility

of vocational education to working adults, improved pertinence of vocational education to labor market, decreased illiteracy and increased program availability in unfunded geographic areas.

Adjusting to Population Growth and Change. The educational challenges noted by PMRA included the following: large pre-school and school age population, increased "at-risk" children and students, increased retirement age, congestion and transportation problems, workforce and training and population growth. Among the suggested solutions were: concurrent enrollment for high school students, more parent training, and increased accessibility of programs at the workplace.

Improving Institutional Response. The educational challenges faced in this area are: accountability of program effectiveness, overlapping and inconsistent delivery system, limited use of available technology, shortage of adult education teachers, need for alternatives educational settings, methods, inadequate data on adult education. The suggested solutions for this problem set are: improve funding levels, improve delineation and coordination of functions between adult schools and community colleges, seek out state provided technical assistance and training, improve data to assess student progress and benefits (Pacific Management and Research Associates, 1988).

Solution Set 3: Business-Education Partnerships:

National and State Perspectives

Business-education partnerships present a mechanism for business to affect educational improvements. Fosler (1990) proposes that education is a continual life-long process of learning and development, and as such, expands beyond the traditional system of education to include the following seven elements:

1. Pre-natal and infant care
2. Early childhood development
3. K-12 education
4. Workforce training (entry level)
5. Higher education
6. Workforce training (continuous)
7. Life-long adult learning

Bernick, et al, (1985) discuss the current limitations of the educational system and suggest that programs and expenditures available to prepare the youth for work are spread thinly among eligible youth. The need clearly outweighs the availability. The authors's report suggests that there are two general "lessons" that have been learned since the first major post-war job training programs in the 1960s. Those were:

1. There are no "quick fixes" for the problems of at-risk youth as most high

risk youth require prolonged and extensive assistance; and

2. funding will never be adequate to seriously impact the problems and thus making it necessary to source alternatives and additional resources outside of the educational system.

Of the programs evaluated, Bernick, et al, found there was no "right" approach and that trade-offs had to be made regarding short-term and long term economic factors and productivity. However, there were found eight "common ingredients" in all the successful programs evaluated. The common core of traits were:

1. Partnerships between government, business and education
2. Effective identification and recruitment
3. Assessment of aptitudes and skills
4. Competency-based training related to work: basic skill literacy training.
5. Encouraging environment and constructive feedback
6. Strong capacity for job placement
7. Contact during and after on-site training
8. Evaluation of long-term impacts and mechanisms for program adjustment (Bernick, et al, 1985).

Concern for the quality of education and the need for educational restructuring is nationwide and many states are studying, and restudying the problem and proposing, as well as enacting, possible solutions. The Wisconsin

Department of Public Instruction (1988) has implemented an "education for employment standard" that defines the K-12 educational components of the planning process and evaluation methods for the educational components. The "education for employment" standard proceeds on three major premises.

First, the "window " for developing students for employment needed to extend beyond secondary school curriculum and begin before high school.

Second, education for employment must be made available to all students not only "at-risk" students or those who may not immediately attend postsecondary school.

Third, an infusion of business reality was needed in the traditional vocational and basic education programs to prepare students adequately for jobs and for lifelong learning (Wisconsin Department Of Public Instruction, 1988).

In the business and industry sector, there are significant forces at work to restructure or, at the very least, renew education. The National Alliance of Business (NAB) has dedicated a Corporate Action Agenda to increase the effectiveness of corporate leaders as advocates and assets for education improvement. The Corporate Action Agenda is an array of multi-levelled activities developed to address "the disturbing disparity between business's understanding of the crises in American public education today and (our) ability to take action that will effectively and measurably improve the quality of

education" (Reingold, J.R. & Associates, 1987, p. 2).

Edelstein (1989) in a National Alliance of Business publication proposes a multi-levelled strategy for education restructuring or reform consisting of five key components which include:

1. school based management,
2. new teacher professionalism,
3. curriculum and instruction,
4. accountability, and
5. linking education and social services.

Edelstein further suggests that business has the opportunity to become involved in five dimensions:

1. Management Analysis and Improvement: developing goals and improving education through restructures.
2. Advocacy: developing partnerships and coalitions
3. Staff Development
4. Research and Development
5. Application of New Technology (Edelstein, 1989)

In March 1990, the California Educational Partnership Consortium (CEPC) Institute was convened by CEPC , underwritten by ARCO and the Southern California Gas Company, and co-chaired by Thomas Donahoe, President of Pacific Telesis Foundation, and Dr. Lewis Solmon, Dean of UCLA

Graduate School of Education. The Institute concurred that there are four areas of education reform: (Note: permission has been granted to include this report in this project with the understanding that the final report is pending the review of Institute members and appropriate CEPC members.)

1. Develop better accountability
2. Decentralize administration
3. Strengthen the teaching profession
4. Increase parental and community involvement in schools

The Institute, as a result of the report's analysis, has developed five priority strategy areas for CEPC which include:

1. advocate aggressively for education and for education reform,
2. enhance the teaching profession and strengthen administrative skills,
3. promote parental involvement,
4. encourage and support school-site management and decision making, and
5. expand the Media role in education reform (California Educational Partnership Consortium, 1990).

A recent project carried out by the Los Angeles Unified School District, Los Angeles Community Colleges and the Industry Education Council of California uncovered common threads of concern shared by the business community for education improvement which included a need to revitalize

career vocational education to integrate it into the mainstream of the educational process. The project also a cited a need for education to improve planning and articulation among business, government, education and community, in order to create and sustain programs for workforce preparation (California Community Colleges; Chancellor's Office, 1989).

Business-Education Partnerships: Planning and Development Issues

Herschbach (1988) suggests that educational institutions, as much as business, are undergoing transformations as a result of the information age and which are producing anxiety for educational institutions as they must adjust perspectives, mission goals and curriculum to fit business needs and social changes. This passage, Herschbach adds, proceeds not with tension. In a broad sense, business-education partnerships provide a resource for education as it moves, along with business, into the information age. Partnerships provide business the opportunity to become involved in the improvement of education, an investment which clearly has a return. This potential mutually beneficial relationship system is described aptly by Willis (1988) when he states, a collaborative ". . . gives rise to a new thrust that did not exist in either organizations prior to the formation of the partnership. These gains normally can be expressed more clearly as the 'power of 2' vice the 'sum of 2'."

However, in order for this reciprocal relationship to succeed, there are challenges to be faced in the planning and development phases.

Harkins and Giber (1989) addressed the challenge issues when they raised the question, "what keeps colleges and corporations apart?" The authors suggests that issues of control, power, trust and privacy become obstacles to successful partnerships. While many companies would consider a collaborative with local colleges they are wary of the management and bureaucracy of the educational system. Companies want control of the programs in an effort to ensure relevance to company issues. Educational institutions fear, in turn, that "accommodating" companies might compromise curriculum quality and integrity. These are turfdom issues to be dealt with. (Harkins & Giber, 1989).

However, as mentioned earlier, partnerships present an potentially lucrative relationship for both business and the educational agency. Harkins and Giber (1989) present the benefit to business as they cite some of most frequently used reasons for doing training outside the company: an outside perspective, new viewpoints, the possibility of taking executives out of the work environment, exposure to faculty experts and research, and a broader vision.

Nell Eurich (1985) presents an industry perspective of education and the use of education in industry:

> ...as industry has always had to provide for its particular training needs, it will continue to do so. Corporate projections and the education to support them must be forward looking. They must create the future. The traditional system, in contrast,

tends to perpetuate the past, and this is only partially justified by its mission (Eurich, 1985, p. 24).

Eurich's recommendations to meet future business human resource needs included cooperative efforts between business and education, thereby giving more "multidisciplinary consideration to real issues, provide more practical application of theoretical studies, and add teamwork approaches to teaching and learning methods" (Eurich, 1985, p. 125).

In considering planning and development issues, Edelstein (1989) identifies the four major components for development of a successful program:

1. identifiable leadership,
2. broad vision,
3. an ongoing structure, and
4. agreed-upon plan of action.

In addition, Edelstein (1989) identifies eight common elements in successful business/education collaborative efforts:

1. Business leaders "coalesce to work together."
2. An intermediary, as a civic organization, joins the local business and community resources together and performs program development and program management duties.
3. Educators, government officials and business act together. Any element missing here reduces the impact of the collaborative.

4. Business with education move together towards understanding the issues.
5. The partnership has mutually agreed upon mission goals and measurements of success.
6. Educators and business people work together to build trust.
7. There is a commitment from all partners: private sector, school and students. All the elements in the collaborative make a long-term commitment. Patience is required.
8. Educators consider seriously business' ideas and suggestions. Business people participate in decision-making (formally or informally).

Moorhouse, Byrne, & Smith (1989) provide an equally detailed study revealing additional components to the planning process which include the following:

1. conduct pilot programs,
2. link career awareness and job readiness activities to academic curriculum,
3. conduct a "community program inventory" to reduce duplication of efforts and gather additional program resources already available in the community,
4. establish program design criteria for selection of participants, and
5. for business, develop a system for organizing a pool of jobs for students

and graduates.

A step by step guide for developing partnerships was developed by the Massachusetts Department of Education, which lists the eight basic steps involved in developing a partnership:

1. Initiating a Relationship.
2. Explore Mutual Interests and Concerns.
3. Expand Group to Involve Affected Constituencies.
4. Set Goals.
5. Develop a Management Structure.
6. Implement and Evaluate Programs
7. Maintain and Sustain the Relationship.
8. Communicate. (Massachusetts Department of Education, 1985).

Concluding Remarks

"There are those among us who believe, however, that the Great American Experiment with public, comprehensive, universal schooling is not over; indeed, it may be just beginning (Goodlad, 1985 p. 5)."

> What we need is a reaffirmation and, probably, a redefinition of the role of education in a democracy, with particular attention to what is required for successful enculturation of the young; a much clearer delineation of the desired function of schools in this process; a clear articulation of the goals, substance, length and

> breadth of the schooling deemed necessary; and a fresh commitment to both excellence and equality and how these can be forwarded simultaneously (Sirotnik & Goodlad, 1985, p. 91).

Sirotnik & Goodlad (1985) describe three major lessons in education renewal:

1. For a school to become renewing, there must be at least a core of teachers and the principal engaged in continuous inquiry insuring the nature, quality and relevance of the educational enterprise.
2. There must be "detached" time-away from daily demands, as in summer workshops.
3. It is strongly suggested that there is open inquiry outside of the immediate surroundings, perhaps with related groups.

Sirotnik and Goodlad contend that in order to effect lasting change in an educational institution, the person in the schools (teachers and administrators) and the persons responsible for programs must learn how to affect improvements as a "built-in characteristic." Resources that involve dialogue, decisions, actions and evaluation are critical to the renewal process. "Unless the conditions for renewal marked by inquiry are created, improvement once more will be at the edges, not fundamental" (Sirotnik and Goodlad, 1985, p. 24).

Fischer and Byrne (1989), reflecting the business perspective to

educational renewal, cite several significant lessons learned as a result of the 1982 Boston Compact (a community business-education partnership program). The lessons included the realization that business still fails to grasp the magnitude of the public school problem and that in order for partnerships to succeed a long-term commitment and a high level of interest are required from all major parties concerned.

The difficulties encountered with Boston Compact experience profiles the problem encountered with many partnerships in the United States. Clark (1988) observes that "there is little substantive business involvement in public education; rather, business involvement can be characterized as tinkering at the margin or getting involved with a classroom here and a school there" (Clark, 1988). Dr. Clark's solution includes the development of a formal synergistic umbrella mechanism. His proposal is the current Industry Education Councils (IEC) across the United States to channel the resources and efforts of the private sector.

However, in a broad sweep, business-education partnerships are beginning to shape the educational landscape and, in sometimes subtle ways, affecting changes in the educational system.

The National Alliance of Business, adopting a comprehensive perspective, provides the student, would-be practitioner and expert with three principal elements to consider in developing and maintaining partnerships:

1. Establish the Conditions for Change - involves shared vision and a commitment for the "Duration"
2. Define Change - involves proper diagnosis of needs
3. Manage Change - requires usage of a review forum and a collaborative agent and change managers.

In addition, managing change requires interim goals and activity timetables. And finally, to manage change effectively, a mechanism for institutionalization must be in place (Chion-Kenney, 1989).

In conclusion, Sirotnik & Goodlad (1988) state that "(educational) institutions are concepts as well as entities" (Sirotnik & Goodlad, 1988, p. 3). As such, they are continually transmuting and being transformed by the individuals comprising them. A solution for today, the curriculum for today, the program for today may not be applicable for tomorrow. We need to build in a system to effectively manage change in the educational environment--one that anticipates and recognizes that change is the one factor that will remain constant in our world. Business has a role in the creation and maintenance of that system that becomes perpetual. For while business has a role in the education reform of this generation, it must also have a long-term mutually enriching relationship with education that will endure beyond the crises of today's educational problems. It is a vision we owe to ourselves and to our children.

CHAPTER 3

The Project

Introduction

Procedure

The project is a three-part guide containing information on business-educational partnerships programs and their sponsoring agencies in the state of California. The first part describes the contextual issues in California affecting the economy and describes the impact on education and describes the role of business in education and its renewal. This includes a description of environmental factors affecting education in California.

The second part provides an overview of the partnership scenario which begins with a description of partnerships and includes descriptions of the major agencies and organizations at national, state, and local levels involved in partnership activities. And, finally, the third part presents five case studies of model partnership programs in California.

The following procedure has been executed for the purpose of researching and developing Part One and Part Two of the resource guide:

1. A research of existing partnership programs in the United States was conducted through a literature search and telephone interviews.

2. Partnership entities (educational agencies and business representatives) were contacted for a description of their mission and objectives and to research the function and relationships among each other.

The California Character

> Pushed by international competition and fueled by technological innovation, California is leading the nation into a post industrial era of "high-tech" industries and a staggering diversity of services. This change is not occurring overnight but it is relentless (Pacific Management and Research Associates, 1988, p. 23).

California is unique. It has been said that California is more than just a microcosm of the United States, but in many ways is an innovator in technology, business and education. Need may very well be the "mother of invention" here as global competition and technological advancements challenge this state to direct its efforts in preparing business and education for a future that seems imminent.

It is the purpose of this guide to describe the major contextual challenges that face business and education in California today and to describe the role of business in the state's education reform as presented through business-education partnerships. This guide has been developed for current and prospective "partners," as well as for others, either in business or

education, interested in the guide's general overview and information on partnerships.

It is necessary to explain the contextual issues affecting education to understand the impetus, purpose, and scope of business involvement through partnerships. The California context is a character unique to the state and is discussed briefly herein in terms of demographics, economics, and challenges in the state's technological position.

Demographic Challenges

The California character is changing, and by the year 2000 major demographic shifts and technological changes will change the visage of the state:

- The state's population will grow from a current 27 million to over 32 million with Hispanics and Asians representing the highest growth profile with 28% and 12.5% respectively.
- The overall age of the population will move from a current average age of 27 to over 30 with 1/3 of the population between the ages of 35 and 54.
- Women will represent 3/5 of the entering work force, and of those women who have school age children, 75% will be working (Johnston & Packer, 1988).
- Currently 25% of the state's population is functionally illiterate, with no

signs of that number diminishing as an average of 26% to 50% of the student population drops out of school annually (State Department of Education, 1989).

Economic and Technological Challenges

California is a major economy, a position that is threatened by global competition. Currently:

- California possesses the world's greatest concentration of high technology industries with 22% of the nation's scientists and engineers and 50% of all nationally sponsored research and development.
- If California were counted as a separate nation, its Gross National Product would rank sixth in the world, however, only 30% of the state's research and development is transferred to commercial industry, allowing foreign competition to challenge our manufacturing base (SRI, 1986).
- The occupational outlook in the state, as with the rest of the nation, will continue to show a shift from manufacturing to service and technical employment opportunities. The highest employment growth rate will be in the computer/science fields and health occupations, at 68% and 53% respectively (Department of Labor, 1988).

Implications for Education: The Learning Deficit

Every eight seconds of the school day, an American student

drops out of school and the U. S. school system graduates 60,000 young people who cannot read their diplomas (Children's Defense Fund, 1990, p. 3).

Today, California schools rank 44th in the nation in student achievement and 47th in the nation in per education spending. California, especially Los Angeles, faces incredible challenges in dealing with the pluralistic student population where, in Los Angeles alone, minorities comprise 73% of the students and, as a result, nearly 40% of kindergartners in the state could be classified as "at risk" in English speaking alone (Fosler, 1988, p. 7). The discrepancy between the state's leadership position in technology and economy and the mediocre quality of education will create an ever-widening chasm between the fundamental workforce needs of business and industry. While 65% of future jobs will require education beyond high school, only 39% of high school students now go to college (American Society for Training and Development, 1989). (See Appendix A.)

The educational challenges of tomorrow exist today. The overall quality of education point to systemic deficiencies with high student drop out rate, dropping student achievement scores, outdated curriculum, and insufficient resources. In an attempt to address the problems, and as a result of their concern for quality workforce, business and industry have become "partners" in the education challenge.

CHAPTER 4

The Role of Business in Education

> The foundation of national wealth is really people--the human capital represented by their knowledge, skills, organizations, and motivations. Just as the primary assets of a modern corporation leave the workplace each night to go home for dinner, so the income-generating assets of a nation are the knowledge and skills of its workers--not its industrial plants or natural resources (Johnston & Packer, 1988, p. 116).

It is widely recognized today that incremental changes in the education system will not address the fundamental structural problems. What is called for is education "restructuring". Restructuring, also known as reform or renewal, is synopsized as follows in a recent statement by R. Scott Fosler for the National Business Roundtable:

> The essence of restructuring is to set clear goals, create an environment conducive to learning, give the authority and responsibility to the people closest to the students (teachers, principals, and the students themselves), assure that they have access to the resources they need to do the job and hold them

accountable for the results (Fosler, 1990, p. 4).

While the principal responsibility for the education system lies at the legislative and state government level, business has a significant role in the school reform efforts. Business has an investment in the graduates of the schools, the future workforce and, as such, has a responsibility to communicate to the schools the skills they need in new workers and to assist them to produce and develop the quality labor force with those required skills.

Business-education partnerships provide business a mechanism and a channel of involvement with schools and education. They are the demonstrations of business's role in education and its reform, and as such, can be instrumental in four major areas of education renewal:

1. Decentralization of decision-making and administration to school levels;
2. Development of Teacher Professionalism;
3. Increasing Accountability in the schools;
4. Restructuring of School Administration which includes linking schools to social services and providing programs for "at-risk" students.

Specifically, the opportunities for involvement in each of four areas of reform include:

REFORM AREA	OPPORTUNITY FOR INVOLVEMENT
Decentralization	• Business assists local schools to define goals and standards • Business provides human resources for endeavors: i.e. training, etc. • Business becomes involved in student activities to teach connection between school and jobs
Improving Teacher Professionalism	• Business provides models for management/staff development • Business becomes directly involved in developing teachers' awareness of curriculum content and its application • Business provides scholarship programs/mini-grants for teacher improvement efforts • Business shares technological and informational resources to increase teacher understanding of industry

Increasing Accountability in Schools	•	Business provides models of evaluation methods used in industry
	•	Business provides incentives to schools to improve performance (i.e., jobs for graduates)
Restructuring Administration of Schools	•	Business shares expertise in management development technology and information
	•	Business provides human resources and technology to assist in retraining of administration
	•	Business becomes involved in school decision-making, formally or informally.

The National Alliance of Business, a collection of leaders from the major business organizations nationally, in alignment with its central mission to assure the quality of the American Workforce, has committed to a Corporate Action Agenda to reform education. The Alliance's agenda describes the magnitude of the importance of developing our youth for employment and has presented six varying levels of involvement business can have with education, describing the strategies employed at each level. (see Appendix B)

R. Scott Fosler (1990) in a statement published for the National Business Roundtable presents a broad vision of education reform and stresses that the

context of the workforce problem (on the forefront of business concerns) extends beyond the traditional school definitions of K-12 education to include the family unit and values, as well as, business and its responsibility to provide the worker continual training and professional development (post-secondary/lifelong learning). Business, therefore, not only has an interest in the quality improvement of education, but has a responsibility to assist in education renewal. Business-education partnerships become a vehicle for that purpose. (See Appendix B.)

CHAPTER 5

Overview of the Partnership Scenario in California

Business-Education Partnerships

PART-NER-SHIP- 1: The state of being a partner: PARTICIPATE... 2. A relationship resembling a legal partnership and usually involving close cooperation between parties having specific and joint rights and responsibilities. (syn., collaborative efforts/ventures, cooperative efforts, joint ventures)

What Are Partnerships?

Partnerships, also known as collaborative efforts, are on-going relationships that bring together schools, businesses, and other community organizations to address their mutual needs and mutual interest in the educational process. Partnerships can range form simple one school/one business connections to larger endeavors with multiple connections.

Why Business-Educational Partnerships?

There is a natural reciprocal relationship between business and education where business supplies the resources necessary to further school improvement/educational reform so that education can turn around and

produce and supply business with the quality workforce necessary to have business remain competitive in the marketplace. Thus, the purpose of partnerships is

> to create a process and an accompanying structure through which each equal party... will seek to draw out the complementary strengths of the other equal parties in advancing self-interests. Each partnership is a means to the end and not an end in itself. (Goodlad, 1988, p. 26)

In addition, referring to the recent statement by R. Scott Fosler for the National Business Roundtable, *The Business Role in State Education Reform*, business is one of the few segments of society that has the interest, influence and resources to match the magnitude of the reform task.

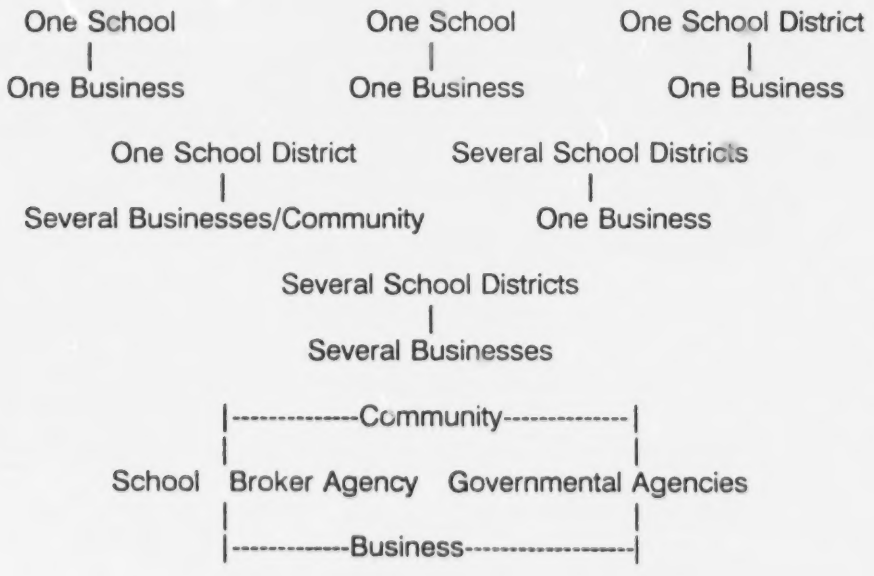
Who Are the Partners and What Are the Elements Involved in a Partnership?

The Partners. Successful business-education partnerships require commitment from four key groups:

1. Schools: teachers/staff, administrators, superintendents.
2. Students: elementary, secondary, post-secondary, and adults.
3. Business: executives, managers, and employees.
4. Community: chamber of commerce, civic leaders, local governmental agencies, and other community agencies.

The National Center for Education Statistics reports that in the United

State during 1988 there were over 140,000 education partnerships involving 40% of the nation's elementary and secondary schools. Fifty-two percent of those partnerships were business sponsored. While the breadth of the partnership scenario is observable by noting the sheer prevalence of partnerships nationwide, the degree of impact partnerships have on education reform is determined by the elements employed and the level of the partner's involvement in these endeavors. Based on business's level of involvement, partnerships present a diversity of possible partner combinations:



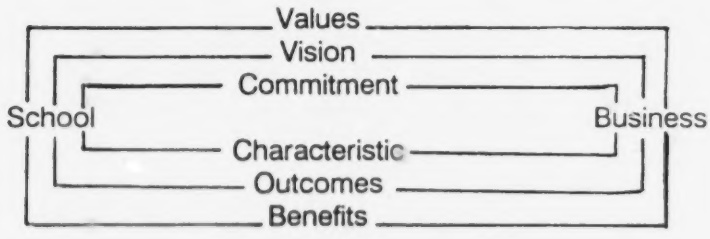
(Note: From the Massachusetts Department of Education, Industry-Education Partnership Guidelines, Massachusetts Department of Education, Bureau of Student, Community, and Adult Education, 1985. Reprinted with permission.)

The Elements. There are four key elements involved in effective business-education partnerships:

1. *Commitment*: This key element draws together and coalesces the groups involved: business, schools, students and community leaders.
2. *Understanding of the Partnership Characteristics*. communication is a key here as the mechanism and operations of the partnership and leadership roles of the partners are clearly understood and agreed upon.
3. *Mutually Agreed Upon Outcomes*. Once roles are defined and a familiarity of the partnership characteristics is established, major goals that outline the partnership and the specific objectives, as well as the criteria measurement of success are agreed upon by the members.
4. *Understanding the Partnership Benefits*. This key element clarifies the partners' motivation for involvement. Understanding the long and short-term benefits solidifies a sustained commitment necessary for partnership success.

The four key elements incorporating values and vision are diagrammed below as an on-going process:

Elements in A Successful Partnership



(Note: From the Massachusetts Department of Education, Industry-Education Partnership Guidelines, Massachusetts Department of Education, Bureau of Student, Community, and Adult Education, 1985. Reprinted with permission.)

How Do Business-Education Partnerships Work and What are the Key Mechanisms Involved?

Business-education partnerships provide a wide range of support to schools, and are relationships that can be initiated by business, the schools or intermediary agencies (a review of the case studies in Part Three in this guide will illuminate the possibilities). The National Center of Education statistics' report that of the 140,800 education partnerships in the United States in 1987-88, partners provided a variety of services and activities:

- Guest speakers, special demonstrations or use of partner facilities (represents 45% of partnerships)
- Special awards, scholarships, incentives for students (44% of the partnerships)

- Assistance for students with special needs (17% of the partnerships)
- Services on education committees/task forces (16% of the partnerships)
- Donation of computers, equipment, books, etc. (14% of the partnerships)
- Provision of academic tutoring for students (12% of the partnerships)
- Sponsoring of special awards for teachers/schools (12% of the partnerships)
- Contribution to teacher/staff professional development (9% of the partnerships)
- Provision of grants for teachers (5% of the partnerships)

As varied as partnerships are, equally as varied are the ways in which they work. However, there are three key mechanisms to be found at work in effective business-education partnerships:

1. *Commitment From Leaders*. Business, schools, and community leaders coalesce to diagnose the needs and work together to address their common concerns.
2. *Agreement On Clear Objectives*. Plan of action, and evaluation data are formulated together.
3. *On-Going Structure*. An infrastructure is established to facilitate *communication* among partners and strengthen implementation and institutionalization of the partnership.

The National Alliance of Business provides a more detailed study revealing additional components to the planning process. Understanding that there are no "right" approaches, the following steps need to be considered.

1. Conduct pilot programs. In considering pilot programs, the amount of funding available and the time frame for funding should be taken into account.
2. Schools need to address issues of time, space and accreditation which would integrate the collaborative into their programs "mainstream." Accreditation lends additional validity and acquires support from faculty and students.
3. Linking career awareness and job readiness activities to academic curriculum. School principals need to be involved with program decisions regarding performance, standards of operation, staffing and accountability for agreed-upon goals.
4. Conduct a "community program inventory" to reduce duplication of efforts and gather additional program resources already available in the community.
5. Establish program design criteria for selection of participants. Included her are issues of funding.
6. Present the program in a positive manner. Enrollment in the program should be voluntary. Utilize a written contract with students to reinforce

commitment.

7. For business: develop a system for organizing a pool of jobs for students and graduates. Job commitment and on-going job development are a major commitment of business leaders (National Alliance of Business, Who Will Do the Work, 1989).

When Are Partnerships Effective?

In the broadest sense, business-education partnerships are effective when the venture has met the objectives set forth in the partnership agreement. Successful partnership programs have in place periodic evaluations to measure their effectiveness.

Evaluations, then, become tools with two important missions:

1. To sustain commitment from the partners through an on-going communication process.
2. To "take the pulse" of the partnership by determining its effectiveness through measurable achievements.

In broad brush strokes, the principal quantitative items to evaluate in order to measure the partnership's effectiveness are:

- Have the schools improved their performance in the intended ways?
- Has business supported the schools (i.e., grants, hiring students, providing mentors) as promised?
- Have students improved their performance as intended in the agreement?

Essential qualitative items to evaluate in a partnership effort are:

- Are school officials supportive of the partnership? What are the indicators?
- Is there a pattern of growth in the program offered on areas of partnership concern?
- Do the partners believe that their investment of time/effort/resources has been worthwhile? What are the indicators?
- Do the partners review the vision or long-term goals of the partnership?
- What measures are employed to sustain commitment from partners?

Determining partnership effectiveness solidifies partners' support, a critical factor to insure success for the venture. In addition, evaluations become navigational radars for schools in determining their effectiveness. And for business, with its focus on the bottom line, the evaluation process anchors commitment.

CHAPTER 6

The Partnership Scenario

The Major Agencies and Organizations Involved

The partnership scenario in California, as in the rest of the nation, is expansive and complex. Many agencies and organizations, locally, statewide, and nationally, have dedicated resources and, in some cases, dedicated entire agendas, to address education reform. And there are many more agencies that provide businesses the opportunity to become directly involved with local schools.

Listed below are some of the major agencies involved in the development and/or support of business-education partnerships (see Appendix C for description and networks of agencies and organizations):

National Level

1. National Alliance of Business
2. National Association of Partners in Education
3. National Business Roundtable
4. National Association for Industry Education Cooperation.
5. Committee for Economic Development
6. United States Chamber of Commerce: Center for Workforce Preparation

and Quality Education

State Level

7. California Compact Program
8. California Business Roundtable
9. Industry Education Council of California
10. California Educational Partnership Consortium
11. State Department of Education
12. California Chamber of Commerce: Education Committee

Local Level

13. Los Angeles Educational Partnership
14. Workforce L.A.
15. Adopt-A-School
16. Community Colleges
17. State Universities
18. Local Chamber of Commerce

CHAPTER 7

Model Partnership Programs in California:

Five Case studies

Introduction

The following case studies presented are model partnership programs that have been selected with the following considerations:

1. The programs selected represent a wide variety of industries and/or student/learner populations.
2. The programs selected represent activities of a variety of "sponsoring" or intermediary partnership entities in the state: from state education to private, non-profit brokering agencies (such as L.A.E.P.) to a combination of partnerships entities (such as in the California compact model).
3. The programs selected represent varying levels of business involvement as described by the National Alliance of Business literature (see Appendix B in this guide).

The case studies will be profiled in the following manner:

1. Background. This includes the history, setting, and partners involved in the partnership.
2. Focus of the Partnership. This includes mission and objectives set forth

in the collaborative agreement.

3. Program Description. Program components and overall description will be covered in this section.

4. Instructional/Curriculum Components. This includes specific curricular activities of the partnership programs.

5. Program Outcomes. Achievements and accomplishments will be covered in this section.

Procedure For Case Study Analysis

Once the model partnership programs were selected to be analyzed as a case studies, the following procedure was followed for the analyses. Partnership program directors were contacted to discuss:

- Brief History
- Organizational Strategy
- Addressed Population
- Funding
- Program Objectives
- Instructional Strategies and Methods
- Evaluation Methods

Whenever possible, partnership programs were visited to gather data and information. Otherwise, telephone interviews were conducted.

Case Study One: Humanitas Academy

Contact: Peggy Funkhouser, Executive Director of Los Angles Educational Partnership (LAEP)

Address: 315 W. Ninth Street Suite 1110, Los Angeles, California, 90015

Telephone: (213) 622-5237

Background

Humanitas, also known as the Humanitas Academy, is a collection of programs focused on improving arts and humanities instruction in Los Angeles high schools through teacher-initiated change. Integral to the Humanitas program is the concept that teams of teachers should be directly responsible for planning and developing curriculum which actively engages their students in learning. A thematic, interdisciplinary and writing-based approach to instruction is used in Humanitas.

Setting. The Los Angeles Unified School District has 49 high schools with 123,148 students. The racial mix is primarily Hispanic and Afro-American with an average student dropout rate between 26-40%. Currently, the Humanitas program is in place in 25 of the 49 high schools involving 152 teachers (teachers join voluntarily) and affecting 3500 students.

History. The humanitas program was designed after the PLUS (Professional Links with Urban Schools) model of Los Angeles Educational Program. PLUS is a program designed to improve the math and science skills

of students through the professional development of teachers and the involvement of teachers in educational decision-making. Humanitas, like the PLUS program, is an on-going teacher development program focused in three areas:

Team Building and Networking

Curricular Reform and Modern Practice

Professional Leadership and Recognition

In 1985, the Rockefeller Foundation approached the Los Angeles Educational Partnership (LAEP) with a request to develop a proposal for an effective humanities program for the Los Angeles high schools. After much research, the Cleveland High School Magnet in Reseda, a suburban community in Los Angeles's San Fernando Valley, was selected as a successful model. It was determined that Cleveland's success in humanities instruction came from its curriculum design which employs a thematic, interdisciplinary and writing-based approach; an approach which has since been adopted for the Humanitas programs throughout the Los Angeles High School District.

Partners Involved. LAEP acts as a "broker" agency coordinating funds and resources for the schools' programs and as an intermediary agency which institutes the program in the schools. As the "broker" and intermediary, LAEP collaborates with various businesses and foundations such as the Ahmanson, Rockefeller, Stuart, Times Mirror, ARCO, Neutrogena, as well as the LAUSD, the

office of instruction (senior high school division), the Superintendent and members of the school board, California Arts Council and the Los Angeles City Cultural Affairs Department.

Focus of The Program

The mission and major goals of Humanitas are:

1. To create for both teachers and students a "Community of Scholars" in which teachers become directly responsible for planning curriculum and decision-making.
2. To substantially improve the teaching of the arts and humanities in Los Angeles high schools through interdisciplinary, thematic and writing-based instruction which is planned by teachers in order to engage students in learning and critical thinking.

The specific goals as addressed by the LAEP are:

a. Increase the breadth of the program by offering Humanitas at least one grade level in almost every high school.
b. Increase the depth of the program by creating teaching teams at current participating schools at more than one grade level.
c. Establish two to four teacher centers at Humanitas schools which serve as training vehicles.
d. Develop an interactive mechanism whereby teachers teach each other.

Goal set Two: Evaluation

a. Complete documentation and evaluation of Humanitas model; effects on student motivation, student achievement, teachers and the effects on the educational structural change.

Program Description/Components

Humanitas is a two-part program involving: 1. the teacher development aspect and 2. the instructional aspect. The four major components incorporating the two aspects of the model are:

The Humanitas Academy

The Teacher Centers

The Media Arts Mobilization Project

TELEventure

HUMANITAS ACADEMY is a series of meetings whereby Humanitas teachers are brought together to discuss content, curriculum and instruction. The two subsets in this component are academic alliances and cultural collaboratives. The academic alliances are on-going collaborations with higher education: USC, UCLA, and Cal State Universities Los Angeles and Dominguez Hills. The second subset involves cultural collaboratives where teachers convene around cultural activities and events that connect them experientially either for professional development or for the purpose of gathering cultural information that benefits students.

The TEACHER CENTERS (currently there are two in the Los Angeles program) evolved from the Humanitas summer academies or summer symposiums which were two to three week training seminars intended as refresher courses for experienced Humanitas teacher and introductions for teams of prospective teachers. Today the Teacher Centers have taken on a significant role in the institutionalization of the Humanitas program system wide.

The Humanitas Teacher Centers are hosted five to ten times a year, at the program's two model schools, Cleveland High School Humanitas Magnet and Jefferson High School Humanitas. The agenda is focused on curriculum development utilizing the thematic, interdisciplinary writing-based approach, following a five-part model for adult learning: theory, model, practice, feedback and coaching. Resident Teachers present the theory on the curriculum approach and then model instruction in the classroom. The teams of Visiting Teachers observe and then plan the curriculum to be implemented in the Visiting Teacher's schools.

The Summer Academy has become a subcomponent of the Teacher Centers. This two-week summer session focuses on refinement of a curriculum plan to be implemented the upcoming school year and includes professional development seminars for teams of teachers.

MEDIA ARTS MOBILIZATION PROJECT is a collaborative project which has been incorporated into the Humanitas program at six schools to give

students a means of using creative personal expression and as a vehicle for interdisciplinary thinking. Media professionals, as "artists-in-residence", come to the schools to instruct students on the potential usage and expression of video. The project has an additional purpose which is to familiarize teaching staff with the technology so they can continue to use video instruction when the media artist is no longer assigned to the school.

TELEventure (to be implemented) will be a telecommunications network which will allow Humanitas teachers to communicate across schools and grade levels with colleagues, in universities and private industry. TELEventure will allow teachers to exchange resources and curriculum ideas and identify collective needs. Today, TELEventure is available in 33 LAUSD schools and other districts.

Instructional Components

The Humanitas team, a cadre of teachers utilizing the interdisciplinary, thematic model, forms a "school-within-a-school". Teams of two to five teachers at a grade level (at each of the 25 participating high schools) coordinate instruction in English, art, history, social studies and science or math for a group of selected students. The Humanitas students become a part of the Humanitas community, taking core classes together. The interdisciplinary approach allows students to learn concepts in one subject area as they relate to the other disciplines. This encourages not only continuity across disciplines,

but provides teachers an opportunity to "customize" instruction so that it is challenging and engaging to students.

Utilizing the interdisciplinary approach, teachers draw parallels across the disciplines and select themes which allow students to make connections between history, their experience and society today. As a component of the writing-based approach, interdisciplinary essay exams are given to assess student progress.

Humanitas Instructional Goals. The curriculum objectives for the program are:

- To create an awareness of the interdisciplinary nature of knowledge
- To breakdown artificial barriers between disciplines
- To develop written, oral, and critical thinking skills through a writing-based and student-centered curriculum
- To connect knowledge, current events, and community through video
- To prepare students for college

Program Organization. The Humanitas program consists of a core of classes at each grade level which is centered around a theme and is taught in units. Examples of themes by grade level used at Jefferson High School Humanitas are:

Grade 10: An exploration of the foundations and development of Western Civilization or: An exploration of the individual, the world, and

the universe around them through the theme "Humanity and the Cosmos."

Grade 11: An in-depth look at Northern American studies and issues in the development of the United States with emphasis on assimilation and the diversity as well as development of an American philosophy of science.

Grade 12: A critical analysis of the quest for power as it relates to society and the individual.

Program Outcomes

Preliminary evaluations of the success of Humanitas classroom instructional aspects, are suggested through a recent report by UCLA's Center for the Study of Evaluation which profiled the academic achievements at Jefferson High School Humanitas. The report covered the 1988-89 school year and focused on three principal areas: attendance, dropout rate and college orientation.

- Attendance. Humanitas had higher attendance rates than school average, 91% and 76% respectively.
- Dropout rate. While the one-year dropout rate for the school was 28.7%, the dropout rate for Humanitas students was nil for almost two years.
- College Orientation. 27% of Humanitas students have GPAs of 3.0 or

better compared to 11% of the other students. 19% of Humanitas students met UC course requirements versus 2% for non-participating students. 65% of Humanitas students applied to four-year colleges compared to 11% of the other students.

It should be noted that the student profile is a mix of remedial to honor students and if any of the classes are considered honor classes it is because of the complexity of the class material and not the innate ability of the students. This initial evaluation suggests that the Humanitas program has not only proven successful in providing quality instruction in humanities, but has demonstrated an achievement in effectively 'engaging' students in a predominantly "at-risk" school.

Case Study Two: Huntington Beach Compact

Contact: Dr. Diana Peters, Superintendent of Huntington Beach School District, and Ms. Joyce Riddell, Executive Vice-President of Huntington Beach Chamber of Commerce

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Telephone: Dr. Peters (714) 964-8888, Ms. Riddell (714) 536-8888

Background/History

Compacts, as presented in the California Compact model, are formal agreements and joint ventures between local schools and business representatives, parents and representatives from youth groups, social agencies, foundations and higher education which, together, select measurable, educational improvement goals. The California State compact is a state-level venture of the California Chamber of Commerce, the California Business Roundtable and the State Department of Education which provides technical assistance to the local compacts throughout the state. The California Compact, modelled in part by other compacts nationwide, was formed as a strategy to facilitate solid business-education partnerships aimed a promoting career and academic excellence with a focus on "at-risk" youth.

In 1988, the California Compact selected ten pilot districts in the state to examine the effects of local compacts on school districts. Huntington Beach, the only elementary school district in the pilot program, was selected for two

principal reasons:

1. The school district and the local Huntington Beach Chamber of Commerce, under the leadership of Dr. Diana Peters and Joyce Riddell, respectively, had a track record of innovative collaborative efforts prior to the Compact.
2. The California Compact wanted to study the effects of a local Compact program on elementary age students and their families to see the benefits of early intervention.

Partners Involved

The Huntington Beach local compact is a committee of teachers (from every school), classified school staff, parents, school board members, business leaders, higher education, with representatives from social services, youth groups, and foundations. The committee meets regularly to discuss goals, direction, programs and other related issues. The committee views itself as a "brokers for matching needs and resources" to attain the local Compact goals. Members of the business community are involved in three ways: serving as career mentors in the classroom, donating instructional supplies and printing services, etc., and making financial contributions in support of a specific instructional program.

The Compact committee, under the guidance of Dr. Diana Peters, has become a results-oriented team which supports a "learning-by-doing" approach

to refine their local Compact plan.

Focus Of The Partnership

While the overall mission of the Compact is to bring together the community to address mutual concerns regarding youth, the principal goals, developed by the local Compact team, are:

1. To teach students to think critically and to apply what they learn to their work and personal lives.
2. To identify students who exhibit "at risk" behaviors, so as to provide programs and services to re-direct their behaviors, attitudes, and achievements.

Program Description

Annually, based upon the recommendations of the various subcommittees of the Compact team, programs are modified, added to and deleted from the main agenda. For 1989-90, the following programs and resulting activities were approved by the Compact membership:

Intervention with the Family. This program focuses on direct support for the total family unit. The component activities of the program include:

A. Parent Education sessions with accompanying child care to facilitate the parents' attendance.

B. Childcare Center for the very young. This center was created in collaboration with the local Pacifica Hospital and the city of

Huntington Beach to assist working parents with infants and young children.

C. Special parent education sessions for non-English speaking parents. In collaboration with the local community colleges, the school district provides the facilities and collects funds for childcare to facilitate the parents' attendance to the programs.

D. The Family Festival is a one-day community event sponsored by the collective membership of the Compact whose purpose is to bring families together for fun and education. The one-day festival includes "workshops" for adults on various topics ranging from parenting skills, youth substance abuse, discipline, and life skills for the family. There are also workshops and sessions for children, part fun with animal shows, and part education with classes on how to deal with babysitters.

Additional Activities For Children Program. These group of activities includes enriching after-school activities, zero-period opportunities and summer school programs. As an example, local business representatives become directly involved in the school program to conduct a "junior toastmasters" session in zero-period. In some cases, business can help turn around an entire program with their support. The local Burger King, in collaboration with the Compact team provided various resources to the district which transformed

the local youth summer program to a summer "academy" complete with an academic curriculum and planned support activities. The summer academy, which once operated at a deficit, now has a waiting list of interested students.

Direct Services to Teachers/Teacher Mini-Grants. This component provides financial support to teachers who wish to develop projects or purchase materials for programs. The proposals, addressing one of the two major goals of the Compact, are reviewed and approved by a local committee consisting of teachers and business representatives. Requests for grants range from purchases of audio-video cassettes to funds to support the development of a comprehensive work-study enrichment program.

In addition to the mini-grants, the district has a "Community of Caring Program," a teacher training program designed for sixth, seventh, and eighth grade students aimed at increasing teacher's understanding of students emotional/social needs in order to motivate them to improve their academic performance and social skills. The program, funded by the Joseph P. Kennedy Foundation, covers issues as trust, caring, respect, family and making decisions.

Intervention and Counseling Services for Children with "At-Risk" Behaviors and For Families of Such Children. This service component begins with the teacher's evaluation of an observed student behavioral problem and an accompanying request for counseling for the student. The local colleges,

(also members of the Compact team), upon the teacher's request, will review the teacher's evaluation and will enlist the services of their graduate students. The graduate students are compensated for their counseling services through grants by local business as well as through state money.

Instructional/Curriculum Components

The Compact program has provided additional vehicles for curriculum development. Two of the major aspects here include teacher development and business involvement in curriculum development and enhancement. The district provides teacher workshops which address the development of critical thinking skills and strategies to work with the at-risk student. One of the district's schools, Dwyer Middle School has business mentors supporting their "Teaching for Thinking" program, a program which recently has won a state Golden Bell Award for student achievement.

Members of the business community, acting as business mentors, are involved in curriculum development and enhancement. McDonnell Douglas, the largest employer in the community working with one of the district's schools, Perry Elementary "donated" a group of scientists and engineers who developed a "space lab" to instruct students through direct observation and experimentation. As part of the endeavor, textbooks were reviewed for alignment with the curriculum objectives and supplemental materials were provided for the exercise.

Program Outcomes

Evaluations are conducted to measure the achievement of objectives set in the Compacts major goal areas and measurement methods relate specifically to each of the programs:

1. To measure the Intervention with Family Program, consistent family participation is measured.
2. To evaluate the effectiveness of the mini-grants for teachers, teachers need to quantify and document the results of the programs developed as a result of the funding provided by grants. Teachers share the results of their mini-grants at a public California Compact conference.
3. To measure the effectiveness of the student "at-risk" program, in a pre/post fashion, attendance and tardiness records are reviewed along with samples of student work and any documentation of student social behaviors observed by the teachers.

In the broad perspective, the Huntington Beach Compact has succeeded in bringing together an entire community in a spirit of collaboration, to work on the challenges of maintaining a healthy environment for their children in their changing community, while, at the same time, preparing them to become productive future citizens in our rapidly changing society.

Case Study Three

The Health Academy:

Oakland Technical High School

Contact: Patricia Clark, Academy Director

Location: Oakland High School, 4351 Broadway, Oakland, Ca 94611

Telephone: (415) 658-5311

Background

A partnership Academy is a modified high school program with a number of specific elements:

- A school-within-a-school structure, in which Academy students take core academic subjects and career-focussed laboratory classes together beginning with 10th grade with selected teachers.
- An integrated academic and technical curriculum in grades 10-12 targeting the development of specific job skills.
- Local business support in the forms of advisement on curriculum, mentors, "loaned" instructors, equipment donations, field and work experiences.
- A student selection process focused on the "at-risk" student.

Setting. Oakland is the third largest city in the San Francisco Bay area with a high minority population. Oakland Technical High School is one of six comprehensive high schools in the Oakland Unified High School District. The

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Setting. Oakland is the third largest city in the San Francisco Bay area with a high minority population. Oakland Technical High School is one of six comprehensive high schools in the Oakland Unified High School District. The

school's 1,600 students are 18% Asians, 73% blacks, 3% Hispanics and 6% white. Currently, the Health Academy has an enrollment of 160+ students who meet "at- risk" criteria, but all entering tenth grade from throughout the District are welcome to apply. Students are also recruited based on recommendations by ninth grade teachers and counselors.

History. The Oakland Health Academy started in 1985, four years after the two original California academies, the Computer Academy in Menlo Park and the Electronic Academy in Sequoia High School were started by the Sequoia Union High School District. The original academies, known as the Peninsula Academies, were developed from similar models nationally. A Partnership Academy's principal purpose was, and remains, to reduce the dropout rate among at-risk students. Due to the success of the original Peninsula Academies, the State Department of Education passed the initiative AB3104 which declared them model programs and funded their replication in 10 other high schools throughout the state. Oakland Technical High School was one of the ten schools elected. The ten replication academies then became known as the Partnership Academies.

It should be noted that at the same time Oakland School District was selected as one of the replication sites, the U.C. Berkeley Guthrie Report reported a crises in the quality of the Oakland's Unified School district's education and, as a result, a crisis in the skills, both academic and vocational,

of the graduates. In 1984 hospitals in the Oakland area approached the district to co-sponsor an academic/vocational program targeting the development of occupational skills necessary for employment in the health field. This led to the formation of a group which supported the application for State funding.

The Health Academy is also supported by the Oakland Unified School District, grants from the California Academic Partnership Program (CAPP), the California Postsecondary Education Commission, the Oakland Redevelopment Agency, IBM, and a variety of community and post-secondary resources.

Focus of The Partnership Program

1. To serve an educationally disadvantaged and largely minority population of students who may not be succeeding in traditional school programs, may drop out, and who lack employable skills.
2. To meet the vocational training needs of such students for skilled and semi-skilled positions with local companies, and to satisfy partially the needs of employers for employees in the selected fields of training.
3. To confront the problem of youth unemployment among the target population, and to establish a model of possible use in other schools, districts, and localities.

In addition to the general goals of the program, each "partner" has their set of objectives outlining their responsibilities in the program.

Partners Involved. The Academy, as a model and a program, depends

upon the commitment of several groups:

- Industry: Hospitals, laboratories, health insurance providers, bio-tech firms, private health professionals in the area.
- Higher Education: University of San Francisco Medical School, UC Berkeley (School of Public Health, Professional Development Program), Samuel Merritt College, St. Mary's College, Peralt and local community colleges.
- School District: Board members, and district representatives.
- Community: American Red Cross, Oakland Redevelopment Agency, Each Bay Consortium.
- Foundations: Marcus Foster Foundation, (an educational foundation), Hewlett Packard Foundation.
- Parents, families, students, and school personnel.

Representatives from the various groups participate in joint decision-making with school officials and serve on the Academy's Executive Advisory Board, the Academy's Steering Committee. The Advisory Board convenes on matters of policy, finance, curriculum, and program activities. The Steering committee functions include the implementation, management and operations of the Academy's programs, as well as the formation and advisement of various subcommittees.

Members of the Health Academy Executive Advisory Board also sit on

the Joint Academies Advisory Board which communicates the proceedings of the seven individual Oakland academies to the District Administration.

Business/Industry Representation. One of the key features in the Academy model is the active involvement of industry, in this case, the health industry. The industry business sector contributes a variety of resources from loaned instructors to equipment and money. However, the most important set of resources provided are those of personnel and time. Industry representatives can:

- serve on the Executive and Steering committees;
- sponsor field experiences for students;
- conduct public relations for the Academy through corporate level meetings and presentations to various state education officials;
- provide part-time work experiences for students;
- provide Mentors for students; and
- train Academy teachers.

Program Description

The Health Academy operates as a "school-within-a-school" and is an intensive, college preparatory academy/technical program with an applied emphasis. It is a three year program offering a selected group of students combined core academic and technical courses which target specific health occupational skills. The program includes career planning, job search

guidance, field experiences, and a mentoring program (in the junior year). Two key features of the Academy classroom are the smaller class size and the individualized instruction. Students who might normally drop out come to the Academy because of a sense of "family" developed in their groups, with their peers and instructors.

Program Components

The Health Academy enjoys a wealth of private sector support, and, as a result, has an enriched curriculum with several integral components:

1. Professional Development Program
2. Peer Education Component (Community Service/Volunteer Program)
3. Mentoring Program
4. "Loaned" Instructor/Speaker Program
5. Special Features/Enrichment of the Whole Child
6. Field Experiences/Symposiums
7. Summer Jobs/Work Experience Program

Professional Development Program. Through a grant from CAPP (the California Academy Partnership Program out of CSU), the Health Academy contracted the Professional Development Program from UC Berkeley to provide workshops which target the development of critical thinking skills through student group problem solving in Math and Science courses. While these

workshops are open to all students, the Academy students are strongly encouraged to attend, and so far results have exceeded expectations. Since 1987, the number of year-long workshops offered has greatly increased and is now co-sponsored by MESA (Mathematics and Engineering Students Association).

Peer Education Component. This student development program is targeted for students who have been trained as experts in technical areas such as C.P.R. These "expert" students become peer educators for other high school or junior high school campuses instructing other students in a specific knowledge or skill area. Currently, the Health Academy has in place a multi-media First-Aid/CPR peer education program, sponsored by the American Red Cross, which trains and certifies Academy students to conduct CPR classes on campuses or elsewhere in the community. There is also an AIDS Peer Education program in place. While the Peer Education Program focuses on the student's technical knowledge and skill development (thereby improving their self-esteem), the program also builds in a community service component where the Academy becomes a service provider and thereby completes the cycle of civic responsibility. Volunteerism is highly encouraged by the Academy.

Mentoring Program. As a result of the busy nature of hospital settings, the Health Academy has been challenged to find enough mentors for the junior

students. In response to this challenge, the Academy has developed a Mentor Events Program which complements and supports the mentoring component so critical to the Academy's model. As an example, the Academy hosts an annual Mentor Breakfast where representatives from surrounding hospitals, local doctors and dentists, medical personnel come to the campus to meet the students. Students then have an opportunity to gather information on the health industry and meet potential mentors.

"Loaned" Instructor/Speaker Component. A vital aspect of the Academy's partnership with industry is the "loaned" instructor program. Loaned instructors are health industry representatives who donate their time and expertise to instruct students in classrooms, or on hospital sites. Their teaching assignment may vary from one or more presentation to instructing for a full semester or school year, during which time their salaries are paid by their employers. Interested loaned instructors are recommended by their company and selected by the Academy's management team. Once selected school faculty provide them a thorough orientation covering classroom management techniques, school procedures, rules and resources.

Instructors may come from various sources, outside of industry. As an example, the Health Academy, employs instructors from the community college, who will teach courses such as Clinical Lab Techniques and Medical Terminology. These instructors are compensated through the community college

through state ADA (average daily attendance) funds. Working through the CAPP grant, nursing students from the local Samuel Merritt College will teach technical skills on campus. In addition, nurses from the local hospitals as well as technicians from the local ambulance companies may come to the campus for a mini-course or presentation. As part of the Academy's partnership with local universities, UC Berkeley will provide researchers and resident doctors for presentations.

Special Features/Enriching the Whole Child. This component considers the whole child who needs enrichment experiences in addition to the academic/ technical curriculum. This program aspect serves several purposes, one of which is to satisfy the fine arts academic requirement. In addition, and equally as important, these enrichment experiences, which may be a trip to the bank or an Academy night at the theater with the family, encourages the student's development of life skills and increases parental contact with the Academy. Parental involvement in the program, a critical factor for the student's success, is encouraged through the various social activities and enrichment experiences provided by the Academy program.

Field Experiences/Symposiums. This program provides student opportunities to gather on-site professional and technical experiences. An example of the on-site approach to instruction, field experiences are designed for Academy students to visit the local Samuel Merritt College and Hospital where

the class instructors invite a certain group of students to attend portions of a Nursing Management class or students will accompany the college's nursing students on "practica", or hospital rounds.

Field experiences provide a variety of "hands-on" experiences including shadowing Radiology or EMT students from the local colleges, attending post-secondary classes, going to local business to observe operations or attending professional conferences throughout the year.

Summer Job/Work Experience Program. A vital component of the Health Academy's career vocational concept is the summer jobs program which is targeted for junior students and may include academic and vocational components. Currently, the Academy, in collaboration with Kaiser's summer youth employment program, provides work experiences for several of the students. Presently, the Health Academy is collaborating with their industry partners, the hospitals, to develop a proposal for a summer Academy program which will include career oriented classes in the morning and work experiences in the afternoon.

In addition to the summer job program is the opportunity for senior students to participate in an advanced health occupations course offered jointly by the Health Academy, the Regional Occupational Program (ROP), and Kaiser Hospital. The course involves one semester of academic preparatory training (laboratory, computer, medical terminology) and one semester of rotating,

short-term internships in different departments of the hospital.

Instructional Components

The Academy's curriculum contains a two-fold mission:

1. To expose the students to and nurture their interest in diverse career opportunities in the health/science files, and
2. to prepare the students academically for post-secondary education.

With this dual purpose in mind, the instructional and curriculum components are inter-related academically and technically and interwoven throughout the student's high school experience. The principal facets of the Academy curriculum are as follows:

1. Inter-related Academic and Lab Courses With a Health/Science Focus. As an example, the first year Academy student will take Academy Biology and Lab, which is one semester of health/medical techniques and hands-on, inquiry science and lab and computer applications, with Academy English, a college preparatory class which features health and science related literature, and Academy Math and Academy World Cultures, which has a focus on cross-cultural approaches to health care issues.
2. Direct Exposure to Career Information. This curriculum component involves first-hand gathering of information through field trips, guest speakers, and individual field experiences to hospitals, postsecondary

science facilities, and health/science related industries.

3. Adult and Postsecondary Mentor.

4. Tutoring and Workshop Support Services. This component includes Peer Tutoring, the Professional Development Program (affiliated with UC Berkeley), and ACCESS, an adult volunteer program coordinated through UC Berkeley.

5. Special Health Science and Medical Lab Training. This instructional component exposes the student to various medical techniques and practical information: Multi-Media First Aid, CPR, medical terminology, AIDS Education and Clinical Lab Skills.

6. Additional Components. The program has a Student Feer Educator Project which allows "expert" students to instruct in their area of expertise.

Program Outcomes

A 1989 report by Far West Laboratories indicates that the Academies, as measured through achievements of the Health and Medical Academy, have demonstrated success in several important areas.

The Academies' populations are comprised of at-risk (at risk of dropping out of school) and under-represented students. Initial findings suggest that the Academies' personal approach improves student attendance. As an example, at the Media Academy, mentioned in the report, only six students dropped out

of a school whose average dropout rate is 50%. At the Health Academy, 18 of 24 (75%) graduating seniors were accepted at four-year colleges, 13 met the entrance requirements for California Universities, and over 75% entered a post-secondary program. This is a significant figure when it is considered that nearly 100% of these same students scored below the fiftieth percentile in English and Math on the California Test of Basic Skills.

As the report aptly mentions, there are qualitative as well as quantitative program achievements. A development of a strong and positive group identity and development of a sense of belonging among the students are qualitative success factors critical to the integrity of the program and which cannot be adequately measured through numbers.

In its evaluation, Far West Laboratories notes that the Health Academy's structure, the commitment of the faculty and the quality leadership provides by its director, Patricia Clark, all are important factors that motivate students to learn and eventually succeed.

Future directions, as perceived by the Academy's director, Patricia Clark, will focus on the overall quality of the Academy program's components, solidifying a communications network statewide for the Academies, and strengthening communication and commitment from parents and community. The Health Academy is a program with a track record. Given the vision of its director and support from the community, all indicators point to continued success.

Case Study Four:

Cerritos College: Partnership With Industry &

Highlights of the 2+2+2 Articulated Career Education Programs

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Background

> Articulated career education programs are those which offer a series of learning experiences that are organized so as to ensure that students pursuing formal education for a particular career field are able to move from one level of education and employment to the next highest level of a career ladder with a minimum amount of duplication or overlap in learning, loss of time in school, and disruption in employment (Rancho Santiago Research Center, 1990, p. 2).

Articulation is a process or system to help students from the high schools, ROP's (Regional Occupational Programs) and adult schools make a smooth transition to a community college and eventually to a four year university without duplication of courses. Articulation is also commonly referred to a 2+2+2. This concept includes two years junior/senior high school, two years at the community college and the last two years at a university.

Currently, there are 18 projects funded statewide by the Chancellor's Office of California Community Colleges. Cerritos College was one of the original to spearhead the implementation of the articulation concept.

History. Cerritos College, servicing 22,000 students, provides a curriculum with a combined academic and vocational focus. The college has a long-standing involvement with business and industry (as mandated by the State's Chancellor's Office of California Community Colleges).

The articulation process began in 1980 at Cerritos as a result of a grant to align or articulate the technology curriculum with the surrounding school districts. In 1986, upon the enactment of Assembly Bill 1725, the California Postsecondary Education Commission was directed to study the feasibility of aligning or articulating career education curriculums of high schools and community colleges and eventually incorporating four year universities. As a result of the study and recommendations of the Commission, the Governor and the Legislature budgeted funds for the purpose of piloting articulated career education projects throughout the state. Cerritos College, one of the campuses selected for the pilot, soon after entered into an arrangement known as the Articulation Consortium with four unified school districts and California State Universities at Los Angeles and Long Beach to begin aligning curriculum. The school districts include eleven high schools, four continuation high schools, four adult schools, and two ROPs. The articulation agreements began with

electronics, drafting, automotive, and other technology courses. (An articulation agreement is an agreement by the community college to grant advanced placement and/or credit by examination to students completing specific articulate courses.) Currently, there are 110 articulation agreements ranging from technology to business education to health occupations to science and math programs.

Setting. Cerritos College has an ideal setting for articulation arrangements, serving a total of 14 public schools and 7 private schools, and therefore, not overburdened by the potential student demand and complicated system bureaucracy of a larger district. The student population, as a result of the rapidly changing demographics of the community, has a high minority representation. In addition, female students outnumber the male students 52% to 48%, respectively.

Partners Involved

An Articulation Council was formed in July, 1987, comprised of high level administrators of the ABC, Bellflower, Downey, and Norwalk-LaMirada school districts. The Council has, in addition, four subcommittee members from English, Science/Math, Counseling and Guidance, and Vocational Education. Each subcommittee contains representatives of the secondary and post-secondary levels.

Business Involvement. Due to the vocational educational nature of the

community college curriculum, Cerritos is closely tied to local business and industry. The college has a Foundation Board of Directors comprised of business professionals and educators. The Board provides input on the institution's directions by establishing program and financial policies. The Board is also a valuable resource for funds. In addition, as with all community colleges in California, each department within the major vocational divisions (Business, Technology, and Health Occupations, as in the case of Cerritos College) has an advisory committee comprised of business and industry representatives who collaborate with the institution to establish and update curriculum.

The articulation process has allowed industry to become involved in advisory committees at the community college as well as the university level. The committees collaborate with the institution in the development of the curriculum being articulated.

Additional Partnerships with Industry. The relationships with industry are institutionalized into the structure of the community college, and therefore are extensive. While for the present, industry involvement in the articulated programs are limited to the advisory committees, business is collaborating directly with the college in many other programs. Many industry/school collaborations take the form of contractual arrangements as is the case with most community colleges. As examples, Rockwell International and Samsung,

businesses located in the area, have established agreements to have ESL (English as a second language) courses taught on company sites. Other arrangements can include the development of specific "customized" technical training programs, in which the company's trainers will collaborate with college instructors to develop a specialized course. This was the case in a combined effort with Vons and Luckys Supermarkets. The college, in partnership with the two companies, developed a Supermarket Industry Program, which provides a standard curriculum for a Certificate in Food Management or an Associate of Arts degree.

Other examples of industry involvement include the donation/provision of materials and facilities for technical training which may occur on the college campus with a college instructor. It should be noted that currently 50% of the Technology, Business, and Health Occupations teachers are adjunct or part time faculty, and many of the instructors are concurrently employed in their respective fields.

Industry, in some cases, can act as a recruitment vehicle for prospective students. Rockwell International, working with various school districts, has an outreach/mentoring program know as ACT (Advanced College Training) targeting junior/senior high school students. Cerritos College, in partnership with Rockwell, helps senior high school students nearing graduation enroll in the community college.

Focus of The Program

Mission Statement. Articulation, involving high schools, ROPs, adult schools, colleges, and industry, is a cooperative partnership process focused on revitalizing the educational system by providing continuity and coherence to students' education.

Expected Outcomes For Articulation. For Students:

1. To minimize duplication (of curriculum), thus reduce cost.
2. To allow students at the high school, adult school and ROP level to receive advanced placement and the opportunity for college credit.
3. To provide an incentive for students to continue technical/vocational education.
4. To encourage enrollment in certain high school and college vocational curricula.
5. To facilitate students transition from high school to college.

For Instructors:

1. To provide high school instructors with a first-hand knowledge of the community college program.
2. To provide the college staff with a first-hand knowledge of the high school/ROP/adult school programs.

3. To establish an integrated program to encourage continued vocational education.
4. To provide renewed cooperation, understanding and respect among instructors.

For Industry:

1. To insure that training programs are consistent with the needs, operations, and procedures of industry.
2. To provide skilled technologists possessing strong basic skills, problem-solving, and technical specialties.
3. To encourage the skilled technical worker to remain current in the profession through a commitment to learning.
4. To provide continued economic growth and development from a pool of trained and informed citizenry.

Program Description

Highlights of the 2+2+2. The Articulation Council has, as of 1987, enacted the START (success through articulation) project. The START program provides high tech training and business education training and provides the opportunity to transfer some or all credits toward a Bachelor's degree at the California State Universities.

Program Components. There are three major components to the articulation process. They are the high school, community college and

university components.

1. HIGH SCHOOL COMPONENT. Critical to the success of the articulation process is the on-going counseling and assessments of the high school student. John Glen High School, involved in the articulation project, has developed guidelines and components to guide the student through the vocational education experience. These include the following:

   - Early on-going vocational/career awareness and assessment.
   - On-going academic assessment to support program planning and industrial arts emphasis.
   - Well developed four year academic/career plan to be completed by the end of the 9th grade.
   - A strong career infusion program supported by staff and local or country-wide businesses.

   In the junior and senior years of high school, students have a greater opportunity to focus on career/vocational programs. It is during this time that students may select courses related to their interested field. As an example, a student interested in a business career may take a beginning computer course which will, in turn, articulate to the community college level. The student will save time and money by reducing unnecessary duplication of courses. A student has three options in articulating his/her courses: 1. advanced placement, 2.

advanced placement with credit by examination and 3. credit by examination only.

2. COMMUNITY COLLEGE COMPONENT. The 2+2+2 career ladder concept allows a student to get on and off the articulation ladder at any point in his/her career. There are a wide variety of options at the community college from the first rung of the ladder which is job training, to the next levels which are a certificate or an Associate of Arts degree and lastly to a Bachelor of Arts degree in Industrial Education or Bachelor of Science degree in Industrial Technology at California State University marking the final rung of the ladder. So, the process of articulation continues at the community college level where courses on a specific track will articulate to the university level. Courses at this level concentrate on lower division and general education requirements.

Cerritos College, in an effort to encourage high school students transfers, has a "Ride Along Program", a full day orientation program for articulated senior students from the neighboring high school. The special orientation program includes an assessment, advisement session and career guidance. In addition, career guidance classes are offered by the college in the evenings and on weekends for in-depth guidance.

3. UNIVERSITY COMPONENT. Articulated courses from Cerritos College

come from one of the following four programs: Automotive, Manufacturing, Electronics, and Design Drafting. Courses at the California State University level employ a two-tiered approach. The first tier of curriculum focuses on the technical skill development, through careful not to duplicate community college courses. The second tier specializes in professional technical management.

While the student's objective is to gain either a Bachelor of Science degree in Industrial Technology or a Bachelor of Arts degree in Industrial Education, from the institutional and business perspective, the objective is to "produce" an employee who is able to perform the job to industry standards.

Instructional Components

Specific and related to the aforementioned program components are the instructional considerations. At the high school level, the Articulation Council has set four considerations for secondary tech-prep curricula:

1. Both the liberal arts and the practical arts are needed at the secondary level and one should not preclude the other.
2. Students in vocational-technical education programs must meet the same basic requirements in seeking the high school diploma.
3. Technical knowledge courses (i.e., Applied Physics) will be rigorous to help students master essential academic knowledge through practical application.

4. Balance, connectedness, continuity and applicability are key concepts to embrace in reshaping curriculum aimed at improving vocational education.

At the high school level the instructional components may include modules, as in the case of John Glenn High School's program. The modules are student training units consisting of:

Series of vocational/career awareness activities

Career assessment and evaluation

Reading, language, and math assessment

Program planning

Specifically, a typical high school curriculum will have technical courses and academic courses woven together into the student's program from the 9th grade. As an example, a student pursuing a business or high technology A.A. degree from Cerritos College may take a business or industrial arts mechanical drawing course along with math, fine arts, language and other required courses. By the junior and senior year, the student will complete several courses that articulate to the college level toward the achievement of the A.A. degree.

Once at Cerritos College, the curriculum focuses on technical skills and includes general education courses transferrable to the university level. As an example, various math, science, and technical courses in drafting, automotive,

electronics, and manufacturing taken at the community college meet the lower division of the university. At the university, the student will complete high division technical skills courses and will focus on managerial and technical professional development courses.

Program Outcomes

The 2+2+2 Articulated Career Education Programs are relatively new in the state and, as such, have had the opportunity to conduct one progress report, for the 1988-89 year. Cerritos College, a trail blazer for these programs statewide, was awarded Phase III of the state funded pilot project, which is the institutionalization of the 2+2+2 model. Based upon the college's 1989 annual progress report to the state, Cerritos College addressed five major project objectives. The following summarizes the report:

Objective One: To expand the Phase III Institutionalization of the high tech 2+2+2 articulation model through various efforts at the high school sites. Outcomes: An increase of 30% in articulation agreements over the previous year (a total of 102).

Objective Two: To ensure that curriculum at all levels are providing students adequate preparation for articulated programs. Outcomes: Course outlines updated to meet state requirements and articulation subcommittee establish 80% course competencies in 102 classes.

Objective Three: To improve access and increase the success rate of the

students in the articulated program.

Outcome: At the time of the report, precise numbers of articulated students was not known. Currently, the college is developing a tracking system. However, 20 students were enrolled in the college's career guidance class.

Objective Four: To expand articulated programs and activities and articulation agreements into other academic and vocational disciplines.

Outcome: 58 signed articulation agreements.

Objective Five: To expand 2+2+2 agreement with California State University.

Outcome: Improved communication and outreach activities with all partners--high school, community college and university faculty.

The future of the articulation project is quite hopeful, as several campuses move toward institutionalization of the program. Keith Adams, Dean of Vocational Education and project director of the articulation program at Cerritos College, contends that the articulation progress will integrate into the educational system and will become an expediter and facilitator mode for transfer education. Considering its brief history, the articulation process has strengthened secondary school curriculum, improved the preparation of the high school students toward post-secondary education, and has strengthened intersegmental and interdepartmental communications, critical for the success of any program.

Case Study Five:

Adopt-A-School; ARCO's Investment

Contact: Karen Neal, Educational Coordinator of the Joint Educational Project, ARCO Consultant

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Telephone: (213) 486-1769

Background

The Los Angeles Unified School District's (LAUSD) Adopt-A-School Program, now a part of LAUSD's "Partnership Programs," began in 1979 with one company, Atlantic Richfield (ARCO), and one school, Tenth Street Elementary. As a result of their success, the program has expanded to include over 500 companies involved in Adopt-A-School activities throughout the district. The school district coordinates the program under the guidance of Wayne Carlson, director for the program. As a "people program," the approach and emphasis is on business's personal involvement with the students. Adopt-A-School's philosophy is to involve the community and business in an open and flexible manner. Thus, business can become involved in a variety of ways and through a variety of activities including tutoring, mini-course instruction, club sponsorship, parent and teacher workshops, student incentives and special activities.

In 1978, one year prior to the formation of district's Adopt-A-School

program, ARCO and Tenth street Elementary School pioneered the first Adopt-A-School partnership in the Los Angeles Unified School District. Through the University of Southern California's Joint Education Project, then under the directorship of Dr. Barbara Gardner, several businesses and schools in the Los Angeles area were surveyed to determine the level of interest in developing partnerships. ARCO was one of the many companies interested and became the first company to forge a relationship with a local school, Tenth Street and join the Joint Educational Project, known as JEP. ARCO's Outreach Committee, comprised of company representatives from Public Affairs and Community Affairs along with a USC representative, selected Tenth Street School to begin the enterprise. Tenth Street was a likely candidate to be selected for three principle reasons: one for its proximity to ARCO's headquarters in downtown Los Angeles, two, for the level of enthusiasm and commitment expressed by the administration and faculty, and three, the school, as with most inner city schools, was in obvious need of resources.

ARCO, in subsequent years, through the company's JEP volunteers (all company employees) has developed partnerships with eight additional schools throughout the greater Los Angeles area. As ARCO locations expanded and employees transferred, Adopt-A-School partnerships expanded. The new programs were instituted by ARCO employees, supported but never provided "release time," which is two hours per week (one hour for instructional activities

at the school and one hour for travelling) to its employees interested in volunteering. In addition to the release time, ARCO provides an orientation program to prospective JEP volunteers which is managed through a JEP coordinator and covers classroom management techniques, information about the neighborhood, and how programs work.

To date, there are four schools in downtown Los Angeles that have been "adopted" by 84 ARCO employees: Tenth Street Elementary School (1978), Hoover Elementary School (joined in 1979), Berendo Junior High School (since 1982) and Manual Arts High School (since 1981). In addition to downtown, Los Angeles ARCO employees have formed a relationship with Edison Elementary in Pasadena and employee's at ARCO's refinery in Carson have "adopted" Banneker Special Education School and Avalon Gardens Elementary Schools.

Setting

In the Los Angeles Unified School District there are over 346,800 students in 414 elementary schools. Hoover and Tenth Street schools alone have 2700 and 2000 students attending respectively. The racial mix for the downtown schools is 98% Hispanic students, mostly from Central America, with a growing population of Asians.

Focus of The Adopt-A-School Partnership Program

Adopt-A-School is a "people program." Incorporating this philosophy, the Los Angeles School District has developed five major goals with clusters of

basic activities that correlate to each objective. The major goals of this program are:

1. Improve Student Achievement. Samples of activities associated to this goal are: tutoring service provided by companies, company-provided scholarships, student incentives, company-sponsored essay contests, and company-provided assemblies and certificates.
2. Improve the Environment in Which Teaching and Learning Occur. Examples of activities relating to this goal are: company sponsors field trips, art contests, music demonstrations, company provides computer training classes.
3. Strengthen the Support from Parents and the Community at large and its Leaders for our program. Activities for this goal can be: companies participate in School Community Advisory Councils, provide parent inservices and workshops, provide volunteers, and provide donations for fund-raisers.
4. Improve Staff Morale. Associated activities here can be: companies sponsor recognition breakfasts and Teacher Appreciation Days for faculty, lead workshops for staff development, and provide volunteers and instructional aides.
5. Improve Relationships and Our Credibility With State and Federal Legislators. Activities here include: companies publicize positive school

events with state and federal legislators, and invite public figures to school events.

In addition to Adopt-A-School's general goals, ARCO's Adopt-A-School programs have four principal goals that guides the company's activities with the schools:

- To Enrich the Academic Curriculum
- To Improve Student Attendance and Increase Student Motivation
- To Develop a Collaboration with the Los Angeles Unified School District in Curriculum Development.
- To Establish An On-going Communication with the Students and Parents.

During its 12 years with the schools, ARCO's relationships with the schools has been principally guided by it's corporate philosophy and internal goals related to its educational involvement:

1. To be able to contribute to the local community by encouraging employee volunteerism.
2. To foster an open program where any employee interested can participate.
3. To involve upper management and establish a corporate policy that will nourish and sustain the program.

This vision, which has sustained the program throughout the years was originally created by Thorton Bradshaw, then President of ARCO, and

Robert O. Anderson, Chief Executive Officer of ARCO.

Program Description and Components

The Adopt-A-School Program, driven by its underlying philosophy, is flexible in its approach and allows businesses of all sizes to become involved in a broad range of business-education activities.

At Tenth Street Elementary, as a result of ARCO's (specifically of its employees) sustained interest and commitment to the program, the Adopt-A-School Program has a well developed outline of activities which comprise the four main components:

The Tutoring Program

Mini-Course Program

Teacher Assistance Program

Parent Education Program

Tutoring. Employees that volunteer to be tutors become involved in a one to one instructional activity with the student in the areas of reading, math and English. Tutoring activities may be directed towards grade-level instruction or may be a part of an enrichment program.

Mini-Course. These activities are developed through the teacher's request and may involve the faculty in the development process. An ARCO employee will direct the teaching of the class and may select the subjects from a broad range of topics including Astronomy, Jewelry-Making, Dance, Art, Career

Planning, Economics, History of Los Angeles and The United States and Environmentalism (to name a few). A mini-course is generally an eight week commitment on the part of the employee, where the "instructor" will instruct a weekly class on the subject selected.

Teacher Assistance. This activity is similar to the tutoring situation with employee assisting in instruction within small groups. As with tutoring, the principle subjects to be instructed are reading, math, and English. If the teacher requests, additional subjects may also be taught.

Parent Education. This is an important component to ARCO's program and was a part of the company's initial thrust in 1978. The Parent Education program involves teaching groups of parents in a wide range of subjects from community awareness to job counseling to basic Spanish literacy. In 1988, at Tenth Street Elementary School, through ARCO's investment, the Basic Adult Spanish Literacy Program (BASE) was introduced to the adults in the community. The school's BASE program (taught from 3-6 p.m. weekly) has trained several parents of the students, who themselves, have become BASE volunteers. The program has an English component and a teacher from Tenth Street Elementary instruct the adults in amnesty classes.

Instructional/Curriculum Components

At Tenth Street Elementary School, curriculum activities that JEP volunteers participate in are varied and most often relate to one or more of the

program components mentioned above. The following describes some of the curriculum enhancement activities volunteers have become involved in:

Math Field Day. This enrichment program, which allows volunteers and teachers to work together to provide advanced mathematics training beyond the average school curriculum, began in 1985 with two ARCO volunteers working with the school district on a math competition program for fifth and sixth graders. ARCO continues to support the program (which was dropped from the school district's budget in 1987) though the sponsoring of a "region cluster" of six elementary school who participate by forming class teams for the eventual purpose of competing in a final June event, Math Field Day. The awards are trophies, certificates, t-shirt and a luncheon.

The Community Garden Club Program. Initiated eight years ago in collaboration with the University of Southern California Cooperative Extension Program, this parent education and student enrichment curriculum component allows families in the community to raise vegetables and produce, in some cases to a value of $500 annually, a significant amount where average annual family income ranges between $7,000 and $12,000. The garden occupies one city block and contains 12 community garden plots situated on land leased from Community Redevelopment Association and is used by the community for gardening purposes as well as for family recreation, a needed resource for a community without parks.

The Garden Program, in addition, provides a live laboratory setting for the school's botany students who gather in the outdoor classroom setting for science instruction. The program has won national recognition as the 1985 winners of a national gardening contest sponsored by the Vermont-based organization, "Gardens for All."

Photography Lab and Classes. This instructional and curriculum enhancement component began four years ago through the endeavors of an ARCO retiree. The photography classes, held three days a week, are instructed by ARCO JEP volunteers with materials provided through an ARCO stipend. This successful program has drawn the attention and enthusiasm of local photography businesses, the local Glendale Community College, and several of the school's teachers who have been trained in photography for the eventual purpose of instructing the classes themselves.

The History of Los Angeles; A Social Study Mini-Course. This mini-course was designed for fifth grade students and during the 1989-90 school year was instructed by Kim Mathias, an ARCO attorney, who, through her own personal interests in the subject area, was able to meet an important need of this transient student population, to familiarize them with the cultural richness located within Los Angeles. The course included a field trip to University of California, Los Angeles (UCLA) with a guided tour of points of interest along the way. The full-day visit included presentations by the UCLA's "University

Express" staff who acquainted the students with general career information and described the benefits of attending college.

Career Education; A Social Studies Component. As a result of the success of the History of Los Angeles mini-course which included the visit to UCLA and the introduction to careers, a career education mini-course was developed for fifth graders. The eight week unit presents highlights of 22 career options. The students select an area of career interest, research the career and make a presentation at their graduation.

Aviation; A Science Workshop and Mini-Course. Through the Museum of Science and Industry Scholarship Program and the efforts of an ARCO consultant and pilot by avocation, an eight week mini-course on flying and aviation was developed. The course, available to fifth graders, included videos and a series of science workshops.

Environmentalism; A Mini-Course. Working with third graders, Dierdre Dizon, an ARCO employee, developed a unit on environmentalism and began a recycling project with the students. The course involved a major study of Earth Day and nine different aspect of conservation and environmentalism. A course outline was developed for the course and made available to interested JEP volunteers and faculty.

Additional Student Enrichment Programs. Tenth Street Elementary has an in-school scouting program which is coordinated by an ARCO volunteer who

teaches scouting and coordinates field trips and camping trips for fifth grade boys and girls. In addition, ARCO donates tickets and makes available buses for family nights at the Music Center and local theater centers.

Program Outcomes

The Los Angeles School District will have in place, beginning in the 1990-91 school year, new goals for the District's Partnership programs. Evaluation approaches are being developed that will directly tie into the school district's major goals:

1. enhance curriculum instruction;
2. reduce dropout rate;
3. improve student career education and preparation for the world of work;
4. improve school climate and learning environment;
5. implement shared decision making among faculty, community and parents;
6. expand professional development and staff recognition;
7. provide appropriate funding; and
8. improve communication with legislators, business community and parents.

LAUSD's Adopt-A-School program has, as a result of its long-term successes, established itself as a nationwide model and has set precedence nationally and internationally for other such programs.

ARCO's Adopt-A-School, their Joint Educational Project, through the

guidance and commitment of Karen Neal, the program's director, continues to grow. Currently, at the adopted Manual Arts High School, a mentoring program is being developed to pair students and interested employees during the students' senior year. Known as the Advocate Program, its goal is to provide support and guidance for students interested in post secondary education. In philosophy and in reality the program extends beyond the boundaries of the schools into the lives of the students, the community and the volunteers themselves. For the many ARCO volunteers, Adopt-A-School has become "adopt-a-student" as the relationships between volunteers and students are maintained through the years.

CHAPTER 8

Summary and Evaluation

The project has been evaluated through critiques by the following individuals:

University Advisors:

1. Dr. Chogollah Maroufi, Assistant Professor in Curriculum and Instruction for the California State University, Los Angeles. Dr. Maroufi has approved the structure and research base of the project.
2. Dr. Fred Pyrczak, E.F.I.S. professor for the California State University, Los Angeles. Dr. Pyrczak has approved any additional elements of the thesis to insure it meets the quality standards of the University.

Field Professionals:

3. Bobbie Cox, director of the Educational Committee for the California Chamber of Commerce. Ms. Cox has reviewed the guide from an overview perspective to insure that the partnership relationships and descriptions are accurate and current.
4. Holly Johnston, Assistant Director for the organization, Workforce L.A.. From an overview and policy perspective, Ms. Johnston has analyzed the study in terms of future applications and additional research.

Summary

This guide was developed to address a need in the larger community and in the state for professionals in business and education to develop a better understanding of the business-education partnership scenario. The business-education partnership field is not new, and therefore has had at least 30 years to become complex.

Partnerships demonstrate themselves in many forms, and each business that becomes involved with the schools injects its own philosophy into the relationship. In addition, schools differ in their needs, and, as a result, modify existing partnership models. These individual corporate philosophies woven into the school's individualized needs creates a complex, and, for many, confusing picture.

It is my hope that this guide will clarify some of the confusion by defining and describing partnerships. I have purposely included a description of the context and environment in which education must operate and business and industry must succeed. And finally, to give the reader an in-depth understanding of the internal mechanisms and organizational structures of business-education partnerships, five model partnership programs are presented as case studies.

The case studies have been presented descriptively. As each are unique programs with unique missions and program approaches, they have not been

compared to each other. What has been evaluated is the program's effectiveness to its mission and accomplishment of set objectives.

APPENDIX A

Implications for Education

The contextual issues in California create the following implications for education:

Impact Analysis: Demographic Factors

Environmental Forces	Implications for Education
DEMOGRAPHIC	Need to serve larger, more pluralistic populations
	Need to provide more parent support services
	Need to combat illiteracy
	Need to provide basic education for adults who dropped out
	Need to decrease drop out rates and increase services for at-risk students
	Need for economic productivity through a quality workforce
	Need to increase the skills of the entering adult worker as the skills required for future jobs will be higher

ECONOMY	Need for recurrent job training to update skills
	Need to develop linkages with business to provide schools with resources and industry information
	Need for job placement assistance and counseling services

Impact Analysis: Technological Factors

Environmental Forces	Implications for Education
TECHNOLOGY	Need to upgrade and enhance K-12 curriculum
	Need to develop business linkages to upgrade current understanding of technology and increase resources
	Need for career information and guidance
	Adult Ed: Need for targeted job training to upgrade skills

APPENDIX B

The Role of Business in Education Reform:

Two Perspectives

The National Alliance of Business 1987 publication, "The Fourth R: Workforce Readiness," describes six varying levels of business involvement in education reform. The levels represent a range of partnership activities and the depth of such activities in education reform:

Level One: Partners in Policy

- These are national, state, local collaboratives among businesses, schools and public officials to affect reform through state, federal or local government legislation.

Level Two: Partners in System Education Improvement

- These partnerships involve systemic change initiatives involving business, education officials and other community leaders to affect reform in the educational system and involves long-term commitment.

Level Three: Partners in Management

- This level partnership involves business and management support to address a variety of school management related needs.

Level Four: Partners in Teacher Training and Development

- Business here provides resources to update, upgrade and maintain teacher expertise and industry/technology knowledge.

Level Five: Partners in the Classroom

- Partners here are business volunteers who bring their industry or occupational expertise directly into the classroom.

Level Six: Partners in Special Services

- This level of activity is short-termed and/or project oriented to address a specific need.

In addressing the breadth of business role in education reform, R. Scott Fosler of the Committee for Economic Development has suggested "channels" for business involvement through the ten stages of the educational reform process. Briefly, the channels and the reform process stages are:

Stage 1. Build Commitment to Excellence in Education.

Business is involved at state level and is involved in establishing a coalition with members of key groups.

Stage 2. Diagnose the Problem.

Business and the coalition develops a data base to draw information and accurately assess needs.

Stage 3. Develop the Vision.

Business, as partner, establishes goals and defines program parameters.

Stage 4. Determine a Reform Strategy

Business establishes a plan of action.

Stage 5. Promote the Reform Agenda.

Business acts as a change agent and catalyst for the reform efforts.

Stage 6. Implementation: Securing Success.

Business, as partner, establishes a state agency to regulate programs and attainment of objectives.

Stage 7. Participate Directly in Efforts.

This establishes credibility of business efforts and secures a permanent roll for business in education.

Stage 8. Integrate Related Efforts.

Coalesce forces and programs to strengthen reform efforts.

Stage 9. Monitor and Assess Results.

Include indicators such as student satisfaction, student mastery and application of knowledge/skills, and derived benefit to community.

Stage 10. Monitor and Assess Results.

Synthesize the "lessons" learned and adjust course. (Fosler, 1990)

APPENDIX C

The Major Agencies and Organizations Involved

Descriptions and Networks

National Level

National Alliance of Business. The Alliance is a business-led organization which builds business partnerships with government, labor and education to assure quality in the American workforce. The Alliance has dedicated a Corporate Action Agenda to address the issues of education reform nationally. For more information call 202-289-2848.

National Association of Partners in Education (NAPE). The association is a non-profit education association which was formed in 1988 from an alliance of two major education groups, the National School Volunteer Program and the National Symposium on Partnerships in Education. NAPE's unique mission is to develop and strengthen organized school volunteers and business/community/military/governmental partnerships programs for the support of education at all levels. For more information call 703-836-4880.

National Business Roundtable. The Business Roundtable is an association of business executives, chief executive officers of companies in all fields, who examine public issues that affect the economy and develop positions which seek to reflect sound economic and social principles. Established in 1972, the Roundtable was founded in the belief that business executives should take an

increased role in the continuing debates about public policy. For more information call 212-682-6370.

National Association of Industry-Education Cooperation. The Association, founded in 1964 by a coalition of industry people and educators, was created to help business and schools work together to improve the quality of education at all grade levels. Developing local Industry-Education Councils across the nation has been a key programmatic development of the Association. For more information call 716-834-7047.

Committee for Economic Development (CED). CED is an independent research and educational organization of over two hundred business executives and educators who act as trustees of the organization. CED is nonprofit, non-artisan, and nonpolitical. Its purpose is to propose policies that will help to bring about steady economic growth at high employment and reasonably stable prices, increase productivity and living standards, provide greater and more equal opportunity for every citizen and improve the quality for all. For more information call 202-296-5860.

Center for Workforce Preparation and Quality Education: U.S. Chamber of Commerce. The U.S. Chamber, with the support of BellSouth Corporation, has established a separate corporation, the Center for Workforce Preparation and Quality Education. The Center, established in 1990, is an employer-based organization which focuses on education restructuring and workforce

preparation. Its purpose is to mobilize local community action through state and local chambers of commerce, provide national outreach to support this local mobilization, and elevate the visibility and voice of business in the education arena. For more information call 202-463-5525.

State Level

Compact Program: California State Department of Education, Intersegmental Relations. The California Compact, a statewide program begun in 1988, is a strategy designed to promote academic and career excellence. An essential ingredient is the joint selection of measurable K-12 educational improvement goals by local school, business, higher education, government and community representatives. The Community Compact Team is then responsible for the joint operation of activities designed to meet the agreed-upon goals. For more information call 916-323-6262.

California Business Roundtable. The California Business Roundtable, established in 1976, is a non-artisan organization dedicated to improving the overall economic climate in California. Composed of principal officers of some 90 major companies in California, the roundtable encourages members to maintain a perspective beyond their own industries and to assert their positions on important issues, and to support basic principles that preserve the free enterprise system in California. In addition, the Roundtable maintains and establishes standards of performance that enhance business credibility and

public confidence and encourage established organizations to stimulate and implement corporate programs responsive to emerging regulatory and legislative issues. For more information call 213-930-6561.

Industry-Education Council of California (IECC). The council is a statewide alliance of businesses, education, government, and labor representatives. It is an umbrella agency without political or vested interest that utilizes the resources of business and community to oversee the partnership activities of 26 local area IECC council and their collaborative programs. IECC's central mission is to ensure the development of continuous and qualified labor supply for the economic viability of California. For more information call 915-460-3200.

California Educational Partnership Consortium (CEPC). Formally established in 1985, CEPC is an organization whose mission is to link education to business, government and community organizations and to strengthen education and community collaboration in partnerships focused on student success. CEPC's governing body is comprised of a coordinating council with officers, an executive committee, and several subcommittees. A board of advisors, including leaders from business, education, and government, provides major policy direction of the consortium. Fore more information call 714-966-4344.

State Department of Education (Career-Vocational Education Division). The mission of the Career-Vocational Education division is to lead, assist, and

motivate individuals, agencies, and organizations, to provide high quality career-vocational education programs and services that are effective, efficient, and equitable; that enhance career, personal, intellectual, and economic well-being of individuals; and that develop human resources which contribute to the economic development of the state. For more information call 916-445-3314.

California Chamber of Commerce (Education Committee). Founded is the largest and most broadly based employer representative in Sacramento. The Chamber is supported by 1,200 representatives of member firms who serve on the California Chamber's standing committees, 160 member trade associations, 400 affiliated local chambers of commerce, and statewide network of 168,000 small business owners. The Chamber serves its members through state lobbying and a variety of services which include workshops on such issues are personnel management, managing health care, and unemployment insurance costs, toxics management and more. For more information call: (916) 443-4730

Local Level

Los Angeles Educational Partnership (LAEP). The Los Angeles Education Partnership was established in 1984 to direct private sector resources to improve the quality of education and build the community's confidence in Los Angeles-area public schools. The Partnership acts as a "broker agency" that sponsors a range of educational programs in the Los Angeles area schools

from teacher-based programs stressing professional development, networking, recognition, and decision-making, to dropout prevention programs and improving student achievement programs. For more information call: (213) 622-5237

Workforce LA. Workforce LA is a partnership developed by the Industry Education Council of California (IECC), the Los Angeles Community College District (LACCD), and the Los Angeles Unified School District (LAUSD). Workforce LA is a policy level organization for Los Angeles whose mission is to unify the leadership of industry, education, government, labor, and the community by building and maintaining a framework of integrated programs, resources and services that support a "life-long" employment training system for the Los Angeles region. Its central goal is to develop a local industry-education partnership model that can be replicated state-wide. For more information call: (213) 224-0567

Adopt-A-School Program: Los Angeles Unified School District. The Adopt-A-School Program, formally established in 1979 with the school district, is one of the first volunteer programs of its type in the United States. Some 520 business firms have adopted 650 of the district's 800 schools. Philosophically, as a "people program" it encourages business representatives to become involved personally with the schools. Adopt-A-School's five basic goals ranging from improving student achievement, improving the learning environ-

ment, strengthening parent and community support, improving staff morale, to improving relationships with Legislators, guide the District's Basic Activities. For more information call: (213) 625-6989

Community Colleges. Community colleges, in general, are specialized institutions offering collegiate-level instruction leading to a certificate, associate degree, or transfer to a four-year institution, in a variety of in-depth career programs in the trade, technical and business areas.

State Universities. Four-year educational institutions that offer degree programs, bachelors, masters and doctorates, in academic and various applied areas.

Local Chamber of Commerce. The Chamber is a nonprofit, member-driven organization comprised of business people joining together to study local economic and social issues, develop appropriate policy positions, and engage in advocacy to achieve agreed-upon goals.

The following section of Appendix C describes the networking relationships, both formal and informal, that exist among partnership entities in California today. While state and local level entities are profiled, national level organizations have been included to give the reader a broad perspective of "inter-agency cooperation."

Partnership Network: Interagency Cooperation*

State Level

California Educational Partnership Consortium

National	Local	State
• National Alliance of Business	• State Universities	• State Department of Education
• National Association of Partners in Education	• Local Chamber of Commerce	• California Business roundtable
• National Business Roundtable	• Adopt-A-School	• Industry Education Council of California
• Committee for Economic Development	• LA Educational Partnership	• Compact Programs
• Industry Education Cooperation	• Workforce LA	

Source: Lorraine Dagerforde, CEPC

*Networks illustrated represent both formal and informal relationships.

California Business Roundtable

National	Local	State
• National business Roundtable	• Community Colleges	• Industry Education council of California
• National Alliance of Business	• State Universities	• State Department of Education
• Committee for Economic Development	• Local Chambers of Commerce	• California Educational Partnership Consortium
	• Adopt-A-School	

Source: Dennis Hunt, Ogilivy & Mather

California Compact Program

National	Local	State
• U.S. Chamber of Commerce	• Adopt-A-School	• California Business Roundtable
• National Alliance of Business	• Community Colleges	• Industry Education Council of California
• National Association of Partners in Education	• State Universities	• California Educational Partnership Consortium
• National Business Roundtable	• Local Chamber of Commerce	• State Department of Education
• Committee for Economic Development	• LA Educational Partnership	• California Chamber of Commerce
	• Workforce LA	

Source: Carol Abbott, State Department of Education

Partnership Network: Interagency Cooperation

Local Level

Workforce LA

National	Local	State
• National Alliance of Business	• State Universities	• State Department of Education
• Committee for Economic Development	• Local Chamber of Commerce	• California Business Roundtable
• National Business Roundtable	• Adopt-A-School	• Industry Education Council of California
	• LA Educational Partnership	• Compact Programs
	• Community Colleges	• California Educational Partnership Consortium
		• California Chamber of Commerce

Source: Holly Johnston, Workforce LA

Los Angeles Educational Partnership

National	Local	State
• National Business Roundtable	• Adopt-A-School	• Industry Education Council of California
• National Alliance of Business	• State Universities	• State Department of Education
• Committee for Economic Development	• Local Chamber of Commerce	• California Educational Partnership Consortium
	• Workforce LA	• California Chamber of Commerce
		• California Business Roundtable

Source: Leslie Dorman, LAEP

Community Colleges

National	Local	State
	• Workforce LA • Community Colleges • State Universities • Local Chamber of Commerce	• California Business Roundtable • Industry Education of Council of California • California Educational Partnership Consortium • State Department of Education

Source: Dr. Jack Fujimoto, Mission College

Partnership Network: Interagency Cooperation

Local Level

Adopt-A-School

National	Local	State
• National Alliance of Business	• State Universities	• State Department of Education
• National Association of Partners in Education	• Local Chamber of Commerce	• California Business Roundtable
• National Business Roundtable	• LA Educational Partnership	• Industry Education Council of California
• Committee for Economic Development	• Community Colleges	• Compact Programs
	• Workforce LA	• California Educational Partnership Consortium
		• Chamber of Commerce

Source: Wayne Carlson, LAUSD

State Universities

National	Local	State
	• Community Colleges • Adopt-A-School • Local Chamber of Commerce • Workforce LA	• Industry Education Council of California • State Department of Education

Source: Dr. Don Maurizio, Cal State LA

Chamber of Commerce

National	Local	State
• U.S. Chamber of Commerce	• Adopt-A-School	• California Business Roundtable
• National Alliance of Business	• Community Colleges	• Industry Education Council of California
	• State Universities	• California Educational Partnership Consortium
	• Workforce LA	• State Department of Education
	• LA Educational Partnership	• California Chamber of Commerce
		• Compact Program

Source: Frieda Gayland, LA Chamber of Commerce

References

American Institutes for Research. (1984). Replication guide for the Peninsula Palo Alto: American Institutes for Research.

American Society for Training and Development. (1989). Training America; Learning to work for the 21st century. Alexandria, VA: American Society for Training and Development.

Assembly Office of Research. (1986) California 2000: A people in transition. (Document No. 0115-A) Sacramento: Government Printing Office.

Bernick, M., Best, F., & Wiesberg, A. (1985). Tomorrow's workers at risk. Sacramento: California State Job Training Coordinating Council.

California Educational Partnership Consortium. (1990). The role for partnerships in restructuring education. Paper presented at the California Educational Partnership Consortium Institute. Sacramento.

California State Department of Education. (1989). California plan for career-vocational education, part one: Policy directions. Sacramento: California State Department of Education, Chancellor, California Community Colleges.

California State Department of Education/California Chamber of Commerce. (1989). A handbook for the California compact. Sacramento: California

State Department of Education.

Carnevale, A., & Cainer, L. (1989). The learning enterprise. Washington D.C.: American Society for Training and Development and Department of Labor, Government Printing Office.

Chancellor's Office, California Community Colleges. (1989) Strengthening the connections between industry, education and jobs: Linking education to employer capacities. (Project # 87-0120). Sacramento: Chancellor's Office, California Community Colleges.

Children's Defence Fund. (1990). Children 1990; A report card, briefing book and action planner. Washington D.C.; Children's Defense Fund.

Clark, D.M. (1988). Has business missed the boat on educational reform. Business and Society Review, 68, 39-40.

Committee for Economic Development. (1985). Investing in our children. Washington, D.C.: Committee for Economic Development.

Dayton, C. (1989). Educational reform: The role of school-business partnerships. Paper presented at the California Educational Partnership Consortium conference. Sacramento.

Dayton, C., & Weisberg, A., & Stern, D. (1989). California partnership academies; 1987-88 evaluation report. (Policy paper No. PP89-9-1). Sacramento: Policy Analysis for California Education.

Doyle, D.P. (1989). Endangered species, children of promise. Indianapolis: Hudson Institute.

Edelstein, F.S. (1989). A blueprint for business on restructuring education. Washington D.C.: National Alliance of Business.

Eurich, N.P. (1985). Corporate classrooms: The learning business. Princeton: The Carnegie Foundation for the Advancement of Teaching.

Fischer, C., & Byrne, S. (1989). The compact project: school-business partnership for improving education. Washington, D.C.: National Alliance of Business.

Fosler, S.R. (1990). The business role in state education reform. Washington D.C.: The National Business Roundtable.

Fosler, S.R. (1988). Demographics and jobs in southern California. Washington D.C.: Committee for Economic Development.

Geber, B. (1989). Industry report-who, how, what. Training Magazine. 26 . 49-63.

Gordon, J. (1989). Industry report. Training Magazine. 26. 39-47.

Guthrie, L.F., & Long, C. (1989). The Health Academy of Oakland: Expanded opportunities for at-risk youth. San Fransisco: Farwest Laboratory.

Harkins, P.J., & Giber, D. (1989). Linking business and education through training. Training and Development Journal, 43, 69-71.

Herschbach, D. (1988). Linking with employment: Training from the perspective of employers. Paper presented at the American Education Conference. St. Louis.

Hodgkinson, H. (1986). California: The state and its educational system. Washington D.C.: The Institute for Educational Leadership.

Institute for Educational Leadership/National Alliance of business. (1989). America's leaders speak out on business-education partnerships. Proceedings from the Compact Institute/Business Leadership Forum. Washington, D.C.: National Alliance of Business.

Johnston, W., & Packer, A. (1987). Workforce 2000: Work and workers for the 21st century. Indianapolis: Hudson Institute.

Massachusetts Department of Education. (1985). Industry-education partnership guidelines. Qunicy: Massachusetts Department of Education, Bureau of Student, Community and Adult Services Education Office.

Massachusetts Department of Education. (1987). Industry-education partnerships; Massachusetts case studies. Quincy: Massachusetts Department of Education Bureau of Student, and Adult Services Community Education Office.

Moorhouse, M., & Byrne, S., & Smith, S. (1989). Who will do the work? A business guide for preparing tomorrow's workforce. Washington D.C.: National Alliance of Business.

National Career Development Association. (1988). Planning for and working in America: Report of a national survey. (Document No. CS 89-060). Washington D.C.: U.S. Department of Education, Office of Educational Research and Improvement.

Norman, L. J. Mastering the Basics. Personnel Administrator, 33, 68-75.

Pacific Management and Research Associates. (1988). Adult education needs for a changing state: Discussion paper on long-term educational and training needs in california. Sacramento: Pacific Management and Research Associates.

Pacific Management and Research Associates. (1988). Adult education in the 21st century: Workplan for developing long and short-term plans for adult education in California. Sacramento: Pacific Management and Research Associates.

Pratt, A. (1988). The benefits of corporate-university partnerships. Paper presented at the conference for the Association of the Study of Higher Education, College of William and Mary. (ERIC Document Reproduction Service No. ED30364)

Rancho Santiago Research Center. (1989). Corporate action agenda: The business of improving public education. Washington: The National Alliance of Business.

Sirotnik, K., & Goodlad, J. School-university partnerships in action. New York/London: Teachers College Press, Columbia University.

SRI International. (1986). California's economic future. Menlo Park: SRI International.

Trippe, S. (1989) Developing community compacts: Roles for private industry councils. San Francisco: New Ways to Work.

Weisberg, A., & Abbott, C. (1989). A progress report on the California Compact. Sacramento: State Department of Education, Office of Intersegmental Relations.

Willis, J., & Jensen, M. A technical education program in partnership with business and industry through a metropolitan chamber of commerce. Paper presented at the American Vocational Association National convention, St. Louis, Missouri. (ERIC Document Reproduction Service No. ED 302724).

United States Department of Labor. (1988). Projections 2000 (Bulletin No. 2302). Washington D.C.: U.S. Dept of Labor, Bureau of Labor Statistics.